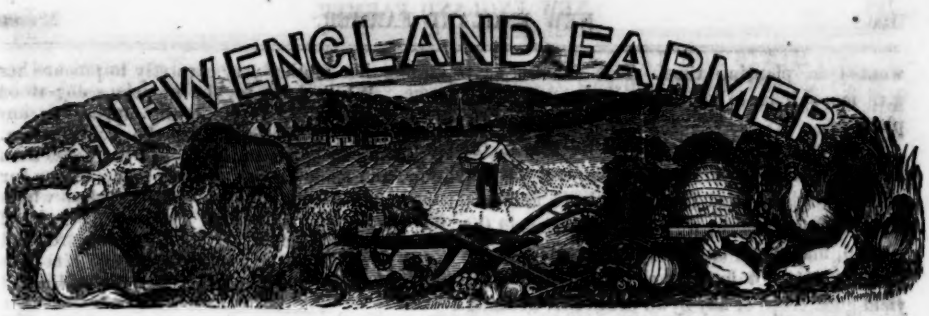

DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. VII. BOSTON, MARCH, 1855. NO. 3.

JOEL NOURSE, Proprietor, Office....Quincy Hall. SIMON BROWN, EDITOR. FRED'K HOLBROOK, HENRY F. FRENCH, } Associate Editors.

CALENDAR FOR MARCH.

The weather now begins to be warmer, but we have sometimes very cold, frosty days, and the bare trees and flowerless fields still appear winterly, while hasty showers of snow fall and cover the dry herbage or flocks who have been allowed to ramble in the pastures.

MARCH is a much-abused month. People grumble, and vent their spleen upon it, as though its flurries of snow, its roaring winds, its sharp frosts and swollen streams, had nothing else to do but plague them,—when, poor souls, March would blow and snow, and freeze and thaw, just as she pleased, if there were no such grumblers in existence! March has *her* duties to perform, as well as June or September, and we could as well spare one as either of the others; and though, like the frolics of the bear with her cubs, they may seem to lack something of gentleness and affection, they are kindly intended, and will answer their purpose very well, after all. So you that sit over the fires, and only peep through the panes at March, had better seek comfort in studying out her ways, and thus make her the shortest and most agreeable month in the year. And you need not escape to the city to do this, for there are even now rural sights and rural sounds, which have much to charm the eye and please the ear; and what are glittering shops, and passing crowds, and dusty streets, and gloomy walls, to these? And then the winds, notwithstanding all we have said against them, are "far from being virtueless; for they come careering over the fields, and roads, and pathways, and while they dry up the damps that the thaws had let loose, and the previous frosts had prevented from sinking into the earth, 'pipe to the spirit ditties' the words of which tell tales of the forthcoming flowers."

The sap is alive in the seemingly sleeping trunks that everywhere surround us, and is beginning to mount slowly to its destination; and the embryo blooms are almost visibly struggling towards light and life, beneath their rough, unpromising outer coats—unpromising to the idle, the unthinking, and the inobservant; but to the eye that "can see Othello's visage in his mind, bright and beautiful, in virtue of the brightness and the beauty that they cover, but not conceal." Some of the birds, too, have come, and now and then a crocus, yellow, blue, striped, or white, peeps up in the clear sunshine, just to tell us what we may expect by and by.

March is not friendly to the bronchitis or lumbago,—but to the saturated fields, the trees, and indeed all the farmer's interests. We cannot spare it yet, and those who do not like it must find some engrossing occupation in-doors, until it blows itself out and makes way for its scarcely less fickle sister, April.

"Now shifting gales with milder influence blow,
Cloud o'er the skies, and melt the falling snow;
The softened earth with fertile moisture teems,
And, freed from icy bonds, down rush the swelling streams."

Now let us see what some of the particular things are to be done in March—and first, the

GARDEN ARRANGEMENTS.—No better thing can be done in March than to determine what garden work you will do in April and May. Make all the arrangements for beds, for the various seeds to be sown, and for the flowers, shrubs, currants, gooseberries, strawberries, trees, &c. This arrangement requires a consideration which you cannot afford to give it when the season has approached for the *work to be done*, and the sun has warmed the earth for the reception of the seed. Finish this during the evenings or stormy days in March.

MANURES.—While the surface is frozen and the teams can go over the fields without cutting in, it is well to haul out the bulk of the manure and place it in compact piles near where it will be

wanted in planting time. This enables us to give more time to plowing, sowing and transplanting.

TOP-DRESSING.—Our inquiries on this matter have been extended to many of the best farmers of New England, and from experience and what we gather from them, we cannot recommend this mode of manuring, only in cases of reclaimed low ground, too wet for the plow, but which will yield good crops of hay by an occasional dressing. If top-dressing is applied to high lands at all, it should be late in autumn, so that the rains or melting snows shall thoroughly wash it into the soil.

FARM TOOLS.—Are the plows in order? Is that lost hinge on the harrow replaced? Are the yokes, chains, carts, collars, hames, and harnesses sound and whole, so that a bright day shall not be lost in repairing them in planting time?

CLOVER SEED.—Sow during the month, five or six pounds to the acre—if on the snow you will be likely to get it even.

FIREWOOD—Split fine and housed at once, will be best, if a current of air passes through it after being under cover.

LIVE STOCK.—Working oxen that are well-tended now, will be far more serviceable for the spring-work, than those that are neglected; so if good butter cows are desired in the summer, they must be turned to pasture in thrifty condition.

MAPLE SUGAR.—Many of our readers make this delicious article, and understand the *modus operandi* better than we do; but that is no good reason why we should not remind them of the approaching season, and drop a hint that they may not forget *us* during their harvest!

PRUNING APPLE TREES.—Again we caution the cultivator against pruning apple trees in March or April—they are the two months the most unsuitable of the whole twelve.

The sun now runs high—the soil will soon be warm, and invite us again to the delightful labors of spring, and especially the Garden; for we believe with BACON, that "God Almighty first planted a garden; that it is the purest of human pleasures; it is the greatest refreshment to the spirits of man, without which buildings and palaces are but gross handyworks." Be resolved, then, to commence a garden with some system, if you have not already.

A DISHONEST DOG.—The *Fall River Monitor* relates the following dog story—showing that remarkable brutes, as well as wonderful men, sometimes apply their superior talents to the worst of purposes:

"A family residing in the southern part of the city, are the owners of a large and faithful watch dog; the little daughter, being very anxious to possess a set of furs, the other day commenced teasing her mother very earnestly to procure her some. While doing so, the sagacious dog stood near, eyeing them very intently, apparently understanding the meaning of the conversation. Watching an opportunity, he left the house soon after, and made his way directly to one of our fur stores, and seizing one of these articles, which was displayed at the door for sale, he made off with it. He directed his course homeward, and being pursued, the fur was taken from him just as he reached the gate of his master's residence."

For the New England Farmer.

CULTURE OF WILLOWS FOR OSIERS.

MR. EDITOR:—In the last number of the *Farmer*, a communication from a Hingham correspondent on the subject of cultivation of basket willow contains statements, which, I fear, may mislead some of those who are trying to gather information on the subject.

Your correspondent says he cut his willow in November, and the impression naturally conveyed is that this is the proper time to cut them for basket work; but, as the bark adheres firmly at that time, he must have had some other purposes in view. He also tells your readers that his product was at the rate of nearly nine tons to the acre, and a person who read the communication carelessly, might suppose that something like this weight may be depended on as a crop when ready for the market, but in the account given, the osiers must have been weighed in a green state and with the bark on them, as the growth of an acre which produces three tons of osiers in a fit state for the market (that is, peeled, dried and tied in small bundles) is considered very satisfactory, and is more than an average crop. With no more labor in the cultivation than running a cultivator between the rows, two tons to two and a half tons can be raised, and it is then very profitable.

The present price of French willow is one hundred and twenty dollars per ton, and the Belgian willow, which is sold by the bundle, would, if weighed, cost one hundred and thirty-five dollars per ton. Though large quantities are raised in England, (the estates of the Duke of Bedford alone, having several hundreds of acres) it is mostly consumed at home. The price of French willow has been as high as one hundred and sixty dollars per ton, and the Belgian still higher, within the last eight months, but the present is about an average rate.

There has been none imported into this city for about two years, the trade being kept in the hands of a few importers in New York, where the supply for the manufacturers in Boston and vicinity has to be obtained. As there is no separate account kept at the custom houses of the quantity of osiers imported annually, it is difficult to get at the amount with any degree of accuracy, but it is variously stated at one and a half or two millions of dollars.

I hope some of our careful farmers will give the matter a fair trial, as we ought not to send money to Europe to pay for what we can profitably raise at home, and we have in this a special encouragement in the fact of the existing duty of twenty per cent. to protect the grower.

Respectfully yours, W.

For the New England Farmer.

WHY FARMING IS DESPISED.

Mr. Editor :—Of all occupations, that of farming, if not the most lucrative, is certainly the most natural, and the most conducive to health. The farmer therefore, ought to be, and *is*, as a general thing, the happiest of men ; but, whenever this is not the case, the fault is not in his business, but in the farmer himself. Notwithstanding these two great considerations—health and happiness—there are many, *very* many, throughout the community, who look upon farming with a sort of contempt—fit only to engage the attention of the lowest class of people. Especially is this true of the younger portion of the community—young men and young women.

Now my object in writing this article is to mention some things which appear to be the reasons why this *wrong* state of feeling exists. If they are not the *true* reasons, perhaps they may be the means of calling forth those that *are* true, from you, or some of the readers of your valuable paper.

1. There is too great a desire to become rich—to gain riches rapidly, and with as little labor as possible. Now it is known that the farming business is not very favorable to those desires, especially the last mentioned. It is true that there are some who have by industry, knowledge, and the strictist economy, managed to gain an independence, simply by farming ; but these are exceptions to the general rule—there being but few farmers, comparatively, who have become rich by that means and no other. And so, many, thinking to obtain riches fast, and much, (but how often are their hopes blasted !) flock to the counting-room, the office of the lawyer and doctor, become speculators, or go to the golden fields of California.

2. There is a seemingly natural, innate (?) repugnance—common to almost every individual—to daily manual labor. [All the result of education.—Ed.] Now this repugnance must be overcome by all who are obliged to work for a living, or else it will ever be a source of unhappiness to them. Many rather than do this, and thinking the farmer has the hardest of work to perform, (which is a mistaken notion) engage in some other business, in which they imagine they can enjoy more ease and exemption from labor. And this object is sometimes attained ; but how frequently at the expense of their health, or happiness, or both, for they are very intimately connected. It would not be desirable, nor is it possible for all to be farmers ; but it seems to me that there are many speculators, merchants and professors, who would have been better off themselves, and a greater blessing upon the world, if they had become, or remained, farmers.

3. It is well known what an influence young ladies have upon the thoughts, actions, and destinies of young men. What *they* think is honorable or desirable, young men are inclined to believe *is* so, and vice versa. We will say to the lasting praise of the gentler sex, that their influence is nearly always upon the right side, but not invariably so. Many young ladies have somehow got the notion into their heads that labor, and *especially* house and farm labor, is degrading ; and to put their notion into practice, they neglect to learn that which above all things a woman should learn—the art of housekeeping. There are, it is true, many exceptions to this rule, but the exception should *be* the rule in this case. Girls either stay at home,—if their parents are able to support them—dress finely, and sigh over sickly novels until they are married, or, as soon as they are old enough, go to some factory or boarding-school, and, after a time, come back and *affect* to despise everybody except those who have plenty of money and but little to do. Young men are aware of this, and, to please or win their sweethearts, seek some employment which they (the sweethearts) think is not degrading. I believe it would not be far from the truth to say, that this is as strong, if not a stronger reason than any other why so many young men turn to other pursuits than farming.

4. Many are ambitious to have their names enrolled upon the book of fame—to obtain the honors and applause of men ; and leaving, or spurning the humble occupation of the farmer, fix their attention upon some pursuit which they think is better calculated to satisfy their desires than farming. But, ambition, although a motive which has prompted men to perform many great and noble actions, yet is a feeling or desire which is seldom or never satisfied. The ambitious man always sees some seeming good beyond his reach which he imagines it is necessary to his happiness to obtain ; he cannot, therefore, be a truly happy and contented man.

5. Most young men are fond of excitement, adventure, and of seeing and knowing what is going on in the world *personally*. The farmer's life, to them, appears dull and insipid—they must be where there is more noise and bustle than can be heard and seen upon the farm. And to gratify these desires, many of them go to the large towns and cities, the railroads, the pedlar's cart, and some to the lone blue sea.

6. Some farmers make such wretched work of farming, and take so little pains to instruct their sons in this most useful art, that it is not surprising they loath it, and seek other employments.

If these are not all, they are (if I rightly read human nature,) the principal reasons why farming is despised.

A few facts in favor of farming, and I have done. Everybody knows that the farmer must work hard, and manage his affairs very shrewdly, to gain *much* besides a good living for himself and family ; he must be content to acquire property slowly, but *surely*. But he has these advantages over many of a different pursuit :—if he is a *true* farmer, there is little danger of his becoming bankrupt, and thus robbing his fellow-men of their just dues, as some do ; he has health ; is comparatively free from distressing cares, and bitter disappointments ; he is surrounded by the beautiful works of God in nature—the trees, grass and flowers, the singing of birds, the pure air of heaven, the changing seasons, and all the sublime and glorious scenes which nature sometimes displays to her wondering children. He has time to observe, think, read and reflect ; and, if he is a man of taste, can generally find means to gratify it—especially a taste for the beauties of nature. He enjoys a sort of independence which other men do not. He does not have to wait until the best years of his life are spent in ac-

quiring a fortune, before he begins to enjoy himself, but enjoys the good of his labor as he goes along. Let us hear what Sir Humphrey Davy, the great chemist of London, says of farming and the farmer :—

"Agriculture, to which we owe our means of subsistence, is an art intimately connected with chemical science; for although the common soil of the earth will produce vegetable food, yet it can only be made to produce it in the greatest quantity, and of the best quality, by methods of cultivation dependent on scientific principles.

"The knowledge of the composition of soils, of the food of vegetables, of the mode in which their produets must be treated, so as to become fit for the nourishment of animals, is essential to the cultivation of land; and his exertions are profitable and useful to society, in proportion as he is more of a chemical professor. Since, indeed, this truth has been understood, and since the importance of agriculture has been generally felt, the character of the agriculturist has become more dignified, and more refined; no longer a mere machine of labor, he has learned to think and to reason. He is aware of his usefulness to his fellow-man, and he has become at once the friend of Nature and the friend of society."

There is—and it is a good omen for the future prosperity of our country—an increasing interest throughout our land, in the science of agriculture. Wonderful improvements have been made upon almost every farming implement, and some entirely new ones invented; so that the *manual* part of the labor upon the farm is much easier than formerly. And what is of more importance, *kindred sciences* are lending invaluable aid to the farmer.

All true lovers of their country cannot but hope that this interest, of which I have spoken, will continue to increase until the farmer shall stand as high in the estimation of *all*,—old and young—as the merchant, physician, lawyer, or *any* of the learned professions.

Yours truly, S. L. White.

Groton, Jan. 4, 1855.

CORN AND COB MEAL.

The grinding of corn and cobs together, which we have heard ridiculed very much by some, formerly, has now become an every day occurrence, farmers being convinced that the cob contains too much nutriment to be thrown away.

Our experience heretofore in regard to its use is this: for those animals that chew the cud it is a most excellent provender, but for those that do not it is not so valuable. Thus, for oxen, cows and sheep, it is a capital feed. These animals, after what they swallow in the *warm* vat, called the first stomach or paunch, have the faculty of throwing it up again in small portions called cud, and chewing it over in a leisurely manner until it is ground very fine, and then after being thus thoroughly mingled with the saliva, swallowing it again into another stomach, where all its nutritive matter is extracted by the proper organs created for that purpose.

The horse and the hog having no such organs to re-chew, do not derive so much benefit from the ground cob, as the animals above named.

Hens derive more benefit from corn and cob meal, than they do from corn meal alone. In fowls of this class there is an apparatus analogous to animals that chew the cud.

First they take dry food into their crops, here it becomes soaked as if it were in a warm vat, from this it passes into the gizzard, which, furnished with gravel stones, acts the part of grinding fine, by aid of the strong muscles of that organ, whatever passes into it. Here, the particles of the cob meal, thoroughly pulverized and mingled with the gastric juices, become dissolved, and form nutrition for the body.

We do not mean to say that corn and cob meal is not good provender for horses and hogs, but that they do not derive so much benefit from pound for pound, or bushel for bushel, as oxen, cows, &c., do.—*Maine Farmer.*

A SHORT LECTURE ON EXTRAVAGANCE.

We spoke (in a former article) of the extravagance of farmers, as well as others of the prosperous classes, in the structure and furniture of their houses. We know of no class in the community, who better deserve all the real comforts of life, than those who fairly win their support from the soil, and we should be glad to see them surrounded, not only with the necessaries, but many of the luxuries of life. But every man's purse has a bottom to it, and the great problem is, how to expend what we can devote to our own comfort, and that of our families, so as to get the best return for our money. Many a man can advise his neighbor how to live, who cannot see his own way clear, or if he does see it, cannot follow it. We have advised, and our advice is especially adapted to young men, to live in a small house plainly furnished, because the small house costs less than a large one, and requires less furniture, and less labor to keep it in order, and because it is truly respectable, as well as comfortable, to live within your means. We might have added another consideration—that aside from the labor of keeping the house itself in order, the household work, generally, is much more easily done in a small, than a large house.

A lady now residing in a city, in a large house with three servants, recently remarked, when speaking on this subject, that when she lived in New Hampshire, in a one-story cottage, with but two rooms and an attic, and did all her own work, including the cooking for her family, and ate in the kitchen, her task was less wearisome than that of merely directing her present establishment. No doubt this is literally true, and no doubt there are many families in every village in Massachusetts and New Hampshiee, whose indoor labor is increased nearly two-fold, by endeavoring to keep up a style beyond their means.

But while we would discourage this foolish sacrifice to public opinion or fashion, we would urge upon our friends the importance of increas-

ing the *conveniences* of the household. We know of a farm—and perhaps we may as well mention it by name—where all the water, for years, probably a half century, used for washing, was hauled from a spring in a cask, with a yoke of oxen and a drag, a distance of about a quarter of a mile. We allude to the beautiful residence of JOSEPH L. CILLEY, Esq., of Exeter, N. H., formerly that of Hon. JEREMIAH SMITH. Rain water cisterns were tried, but the buildings from which the water came, were surrounded by trees, the leaves of which filled up the conductors and spoiled the water. So for years, every Monday the team and man were employed to haul the supply from the spring, up a troublesome hill. But the present proprietor taking advantage of one of the most interesting inventions of modern times, has erected a small dam, so as to raise a little pond by the same old spring, put in a hydraulic ram, which is worth, for the purpose, more than all the oxen in the county. This little machine, which costs but a trifling sum in itself, besides the pipes which convey the water, throws a portion of the water, by its own action, to any desired height, keeping up an unceasing motion, like the pulsation of the human heart, day and night, until the machine is worn out. The water is thus thrown into the kitchen of Mr. Cilley's house, where a large reservoir receives it, from which the waste water is conducted under ground, to supply a large stock of cattle in the barn-yard. There are many places where water may thus be brought to our buildings, many where it may be brought in common aqueducts, or pumped up by windmills, both for ordinary uses, and for irrigation, in seasons of drought. We hardly know of any particular in which true comfort and economy may better be promoted, than in availing ourselves of modern inventions in raising and conducting water.

While we would discourage expenditure for that which merely gratifies a taste for display, we would encourage a liberal outlay for such conveniences as lessen human toil. It has been well and beautifully said, that "They are the heroes of the race, who abridge the time of human toil, and multiply its results." Their place is high above those who command armies. They are the true benefactors. This is especially true of New England. We have here no servants, and want no servile class. Let us adapt our habits of life to the republican theory of society, and so arrange our houses and affairs, that all our labor may be seasonably performed, independent, as far as practicable, of assistance outside our own families. The family which can perform its own labor, without and within, unaided by others, has reached a point of independence, which they can never attain, who depend on hired help.

Many attempt this independence, but in the wrong way. Having commenced in a large or inconvenient house, they attempt to perform all the labor, which is beyond their strength, and the wife and mother is soon prostrate by ill-health, pain, over-exertion, and care. Adapt your load to the strength of the team, at the start, and do not try to drag a double freight through life, especially of useless lumber. There are a thousand little conveniences, of infinite importance in every dwelling, which are too often neglected, because the money has all been spent for the house and parlor furniture. Among those, most prominent, perhaps, are the appliances for warming, and supplying with water. Then follow convenient milk rooms and store rooms, bathing-rooms, cooking apparatus, washing, drying, and ironing places and implements, and the hundred little articles of kitchen utensils, which your wife will enumerate to you, when you are ready to procure them.

A New England farm should be a little republic of itself, where every citizen should take his share of the burden, and everything be arranged so that intelligent, educated labor should be able to manifest its superiority over mere brute force, and where display and fashion should yield at once, to the demands of rational beings, for some leisure for intellectual culture.

HOW RUSSIA TREATS HER BEST GENERALS.

Mouraivieff commenced his career as a lieutenant in a regiment quartered in Georgia, of which country he was afterwards many years Governor-General. No officer in the Russian army possessed the same talents and acquirements; his capabilities as a linguist were great, extending to thirteen languages, many of them Eastern. Though more than acquainted with the duties of his profession, he never, like the martinet of Warsaw—the late Grand Duke Constantine—examined whether the men's gloves were sewn on the inside or the out; nor did he care whether their caps were put on at the precise angle prescribed by the imperial orderly book at St. Petersburg; moreover, he had opinions of his own not exactly in accordance with those of his master. A few years ago, his division was ordered to one of the great reviews; but, though in a good and effective state, its appearance did not meet with the approbation of the Emperor, who had scarce glanced his eye along the line, when he ordered Mouraivieff to the rear, exclaiming aloud, "Bad, bad! what troops? National Guards!" The manœuvres over, the disgraced general was ordered into his presence. "What means this, sir!" demanded the Emperor. No answer. "What troops do you call these, sir?" Still no answer. "Do you know who is speaking to you, sir?" The general raised his hand slowly to his cap, but remained silent. Dismissed with indignation, he retired to his tent; the policy, however, of Nicholas, gained the ascendant over his ungovernable temper, and

the next day Mouraivieff received an invitation to dinner; but the insult had been too public; he declined the honor, and retired to his estate near Tver, refusing either reconciliation or employment. Yermoloff, in consequence of some caprice of the Emperor's, or the intrigues of those about him, was also shelved.—*Jesse's Russia and the War.*

CHLOROFORM FOR DOMESTIC ANIMALS.

The last report of the Commissioner of Patents contains a very interesting article from the pen of Dr. Jackson, of Boston, Mass., (who first discovered, thirteen years since, the paralization of the nerves of sensation by inhaling ether,) on the use of ether with chloroform for domestic animals, for facilitating surgical operations, either for the cure of diseases, or for rendering them more serviceable to man. Among these operations he mentions the removal of tumors, the application of actual cautery, castration, &c., and also states that very refactory horses had been made to submit to shoeing, and soon learn to submit afterwards without a repetition of the ether.

The ether and chloroform mixture is administered with great facility, by attaching to the nose of the animal, a muzzle or basket, (fastened to the head-stall,) in the bottom of which has been placed a very coarse open-textured sponge, which has been soaked in water and squeezed dry. One part of chloroform and four of ether are mixed in a bottle, and then poured upon the sponge from time to time, as needed, renewing it as it evaporates. The animal breathes it freely, and "soon falls down gently into a deep sleep of insensibility and unconsciousness," and becomes entirely passive to any operation that may be performed.

Dr. Jackson regards the use of pure chloroform as dangerous, and recommends its mixture with ether for animals, as better than ether alone on account of its greater power and concentration. The mixed vapors also act more kindly, on account of the slightly stimulating property of the ether overcoming the deadly sedative effect of the pure chloroform. Dr. Jackson remarks that he has never known a single fatal accident from the administration of the vapor, nor of this mixture, provided air was also admitted into the lungs mingled with the vapor, so as to sustain the functions of life as required for respiration. This remark, we understand, he applies to its effects on the human system, in which his practice has been most extensive.

Animals that have considerable sensible perspiration, will bear large doses without any danger; such are the bull, horse, &c., while a cat may be readily killed by a full dose of chloroform, and it should be very cautiously administered to the dog. Ether, alone, mixed with air, is considered as perfectly safe.—*Country Gentleman.*

PROFIT OF COWS.—At a meeting of the Farmers' Club, of the town of Bedford, N. Y., December 29, 1854, the subject of discussion being the relative profits of butter-making and milk-selling, the following was presented by a member of the club:

"In the year 1853, I kept ten cows. The calves, butter, and buttermilk for pigs, amounted to $46, 75 per cow. In 1854, I kept eight cows and two heifers in first time; one, two years old, the other three. The calves, butter, and buttermilk of these last amounted to $44,06 per cow.

"My cows are common natives, of no particular breed, and kept in the common way of keeping in this town, for butter-making; but much inferior to those kept for milk only. With good, first-rate keeping, as is the custom with some where they sell their milk, I think my cows will bring me in $60 each."—*American Agriculturist.*

For the New England Farmer.

CRITICISMS.

MESSRS. EDITORS:—I think it would better suit the majority of farmers if the articles, good in themselves, were published at a proper season. If you refer to the different numbers of the last year, you will observe that many letters in relation to the best mode of planting or sowing, have appeared one or two months after planting time; those on the best mode of cutting or curing hay, have appeared perhaps after everybody had finished haying; in fact, that articles, interesting at the time they were written, have appeared two months later. The space, too, occupied by reviewing the articles in a previous number, might be filled with something more interesting to those who have read the previous number. The repetition of articles, however short, in the same number, is an objection. A little more carefulness in these matters, I have no doubt, would make your paper one of the most popular periodicals of New England.

Give us seasonable articles, so that we can immediately avail ourselves of any information or instruction you can communicate, and you will, no doubt, see the effect in an extended subscription list. Respectfully,

Boston, Jan. 15, 1854. H. L. STONE.

REMARKS.—We always receive kindly, criticisms upon our labors when they seem to be made in a spirit of kindness, because they are evidences of an interest in those labors and in the general cause. With regard to publishing articles out of their season, we will relate a little of our experience to our friend. Several years since, we adopted the plan of retaining such articles as seemed unseasonable until the more appropriate time had arrived, and stated that such would be our course. But in the lapse of a few months we received so many letters of inquiry about the reserved articles, and found so general dissatisfaction, that we abandoned the plan. Correspondents cannot awaken an inspiration at will—they write when circumstances, or the spirit, moves them, and when they have written they desire to see their articles soon published. The practice is really without serious objection. If an article on any agricultural subject is worth publishing, it is worth preserving; we have, therefore, placed the agricultural matter in a convenient book form, and every year accompany

it with a complete index, so that the intelligent and careful reader will always find the subjects seasonable. At most, it is only an occasional fact given during the current year that can be unseasonable. The space occupied by "the review," seems to us to be appropriate and valuable, and we believe is generally approved. A similar practice was long continued in the *Horticulturist*, while under the charge of Mr. Downing.

NOW-A-DAYS.

Alas! how every thing has changed,
Since I was sweet sixteen,
When all the girls wore homespun frocks,
And aprons nice and clean;
With bonnets made of braided straw,
That tied beneath the chin;
The shawls laid neatly on the neck,
And fastened with a pin.

I recollect the time when I
Rode father's horse to mill,
Across the meadows, rock and field,
And up and down the hill;
And when our folks were out at work,
As sure as I'm a sinner,
I jumped upon a horse bare-back,
And carried them their dinner.

Dear me! young ladies, now-a-days,
Would almost faint away,
To think of riding all alone,
In wagon, chaise, or sleigh;
And as for giving "pa" his meals,
Or helping "ma" to bake,
O, dear, 'twould spoil their lily hands,
Though sometimes they make cake.

When winter came, the maiden's heart
Began to beat and flutter;
Each beau would take his sweetheart out,
Sleigh-riding in a cutter;
Or, if the storm was bleak and cold,
The girls and beaux together,
Would meet and have most glorious fun,
And never mind the weather.

But now, indeed, it grieves me much
The circumstance to mention,
However kind the young man's heart,
And honest his intention;
He never asks the girls to ride,
But such a war is waged,
And if he sees her once a week,
Why, surely, "they're engaged."

TERMS.

We promised in a former number, to adhere as far as possible to the use of terms which are universally understood; and, if scientific terms creep into our pages in spite of us, to explain them in a little vocabulary annexed to our educational department. In pursuance of that plan we give the following:

Sulphate of Lime; Gypsum, Plaster of Paris; a chemical compound of 40 parts of sulphuric acid (oil of vitriol) to 28 parts of lime and 18 parts of water. The experiment of putting plaster with green manure for the corn crop, mentioned on page 6, is well worth trying. We here commend a very careful perusal of the article on page 5, headed, *Plaster of Paris as a fixing agent.*

Sulphate of Ammonia; a chemical compound of sulphuric acid and ammonia, very soluble in water, and favorable to the growth of plants.

Carbonate of Lime; a compound of carbonic acid and lime, 22 parts of the acid to 28 parts of lime. Marble, common lime stone, and a portion of marls, and a portion of all soils, are carbonate of lime. Carbonic acid is the gas which rises from foaming beer, cider or wine, also from soda water, and from a bit of chalk or lime stone when you drop vinegar upon it. It is injurious, if taken into the lungs—destroys life if breathed in large quantities, as in the bottoms of dry wells—but is wholesome when taken into the stomach, as in soda water. It arises from fermenting manure heaps, also from rich soils; water readily absorbs it, and brings it down in the form of rain. It constitutes a large portion of the food of all plants.

Carbonate of Ammonia; a compond of carbonic acid and ammonia. Ammonia is composed of 14 parts of nitrogen and 3 of hydrogen. It rises from fermenting or decaying substances, and combines with carbonic acid, which springs from the same sources, forming with it carbonate of ammonia, a volatile gas, that is, one which flies away in the air. What is meant by fixing the ammonia is this:—Sulphate of ammonia is soluble, that is, it dissolves in water and stays in the soil or manure, while carbonate of ammonia is volatile, that is, it flies away in the air and is lost from fertilizers which contain it. By putting in plaster, or sulphate of lime, the volatile carbonate of ammonia is changed to the non-volatile (fixed) sulphate; and in this form it remains for the future use of plants. Hence the great utility of applying plaster to all manures and keeping them in a moist condition.—*The Farm, by Prof. Nash.*

For the New England Farmer.

TAKE CARE OF YOUR CATTLE.

BY DR. JOSEPH REYNOLDS.

It is a pleasant sight to see a herd of cattle quietly chewing the cud of contentment, apparently satisfied with themselves, and all the world around them. But a herd of restless, uneasy cattle, breaking out of their enclosures, hooking and pushing each other, whenever they come near enough, rubbing off their hair against every post or tree they can get at, shaking their heads, and apparently dissatisfied with everything around them, is anything but a pleasant sight.

If you would have your cattle happy and contented, furnish them with an abundant supply of wholesome food, and keep them in a warm and comfortable atmosphere. Cattle that are pinched with the cold, are always restless, as well as those that are pinched with hunger. Dairy-men understand very well the effect of restlessness and discontent, both upon the quantity and quality of milk. However well a cow may be fed, if she is uncomfortable from cold, she will give but little milk. If she is homesick or uneasy from being shut away from her companions, it will soon be seen in the poorer quality of her milk. Cattle are often restless and discontented because their wants are but partially supplied. It is not enough that they should be abundantly furnished with one kind of food. They need a variety. In the winter, hay of various kinds, oat straw, corn

fodder, roots and grain should be given at intervals. No cattle, whether milch cows, fatting cattle, or working stock, will thrive equally well on one kind of food as on a variety. They need an abundant supply of water, and should have as much salt as they will eat, both winter and summer. In the summer, when their food is green and succulent, they should have ground bone mixed with their salt. This is especially necessary for cows that are giving a large quantity of milk. They often manifest an insatiable craving for lime, and will spend hours in chewing an old bone, to satisfy their craving. All the lime taken into the system, in their food, is carried off through the milk vessels, and the operatives whose business it is to manufacture bone, have no material to work with. Our agricultural warehouses should keep pure, clean bone, ground *very fine*, for this special use.

Cattle need a variety of grasses and herbs in the summer, as well as a variety of food in the winter. They like occasionally to browse among the bushes, and to crop the leaves from the trees. Different plants have different medicinal, as well as nutritive properties. One has some quality by which it acts upon one organ, and another, some property which causes it to act upon another organ. One acts upon the liver, causing a more copious secretion of bile. Another acts upon the kidneys, another upon the salivary glands. A proper variety of plants keeps all the organs in a state of healthy activity; feed a cow upon such plants entirely as act upon the salivary glands, and she would slaver like an old tobacco chewer, or like a horse that has been eating lobelia. Those who pasture their cattle upon land capable of tillage, would undoubtedly find the health, and consequently the profit of their cattle promoted, by cultivating grasses of different kinds for the express purpose of pasturage. Cattle that have an extended range of pasturage, upon different kinds of soils, and among bushes and trees, more readily obtain the variety of food which they need.

Always endeavor to secure the good will of your cattle and horses; a turnip, an apple, a potato or an ear of corn, given occasionally to a horse, an ox or a cow, if given in a kind and gentle manner, will generally do this, and when the good will of such noble animals can be procured at so cheap a rate, who would not purchase it? Keep up a familiar acquaintance with your animals, so that they shall always know your step, and recognize your voice at once. Always maintain a good understanding with your horses and oxen. Never deceive them, and never forfeit their confidence, if you would have them trusty and faithful. Make them understand that they must promptly obey you, and that you will supply all their wants. Teach them to confide in your judgment, by never requiring of them tasks beyond their ability. Require an ox to draw a load which is beyond his strength, and repeat this two or three times, and you have spoiled him completely for the draft. Never require your horse to do what he cannot easily and readily accomplish, and he will soon leap a five-barred gate, or draw a ton, when you command it, because he has learned to trust your judgment, and believes you will not require what he is not able to do. This mutual confidence between you and your animals should be scrupulously observed, if you would have them cheerful and trusty servants. The horse of the Arab, that lives in the tent of his master, and is the pet of his family, will bear him over the burning sands, the livelong day, trusting with entire confidence that he will suit the task to his strength, and supply all his wants; and the master will share his last morsel of bread, and his last handful of barley, with his favorite horse.

But enough for the present. J. R.

Concord, Jan., 1855.

For the New England Farmer.

GOOD PAY FOR A LITTLE LABOR.

Friend Brown:—Though I am a poor man, and own but two or three acres of land, keep but two cows, one horse, two swine, and a few fowls, the latter of which a late writer in the *Farmer* thinks more profitable than any of the farm, it is my opinion that all are exceedingly convenient and will well pay their way if rightly taken care of.

I am obliged to work early and late in my shop, yet I welcome the evening when the *Farmer*, with its bright, clean pages, is brought to my house. Pleasant are the hours which I spend in reading its columns, and valuable to me the information I learn in regard to the cultivation of my fruit trees, grape vines, rose bushes, vegetables, and in the feeding and general management of my stock. I will give your readers my mode of feeding one of my cows. I purchased her last November, when she gave four quarts of milk a day. I commenced feeding her with cut hay, two quarts of shorts, and a few carrots, wet with cold water, twice a day for one month. At the end of that time she had not increased in her milk at all. I then commenced wetting the same amount of feed with boiling water, and at the end of the second month she gave regularly *six* quarts per day, which I thought a fair gain. Where a person needs considerable milk and keeps but one cow I would recommend a trial of this mode of feeding. A. Brown.

E. Abington, 1855.

Acorns and Cattle.—The *Pennsylvania Farm Journal* gives an instance of cattle being killed by excessive eating of acorns. The fatality occurred on the farm of Richard Lamborn, near Westchester, Pa., who lost fourteen head in the course of a few days. The cattle at first showed symptoms of illness by watery eyes, drooping head and spiritless walk. The cows failed of their milk, their carcasses were almost bloodless, and the stomach and intestines exhibited every appearance of suffering from powerful astringents. As acorns are known to possess astringent properties to a considerable degree, there can hardly be a doubt that they were the cause of the difficulty. Some varieties of acorns are much more astringent than others. The nuts in this case were of White, Black and Chestnut Oak.—*Am. Agriculturist.*

☞ If you know any thing that will make a brother's heart glad, run quick and tell it; and if it is something that will only cause a sigh, bottle it up, bottle it up.

THE DOMESTIC TURKEY.

Some thirty or forty years ago it was a rare thing with many families to have a roasted turkey, or even a pair of chickens, upon their table, more than once or twice in the year; and then on some particular occasion, such as Thanksgiving, Christmas, or when some long-absent friend had returned to sit once more at the family board. Good beef could then be purchased, by the quarter, for three to five cents a pound, and in small quantities for five to eight and nine cents a pound. At the same time nice turkeys brought ten to fifteen cents, and were looked upon by the mechanic and laborer as a *tabooed* food to them. Now the best beef sells at from ten to seventeen cents, and poultry at from eight to fifteen cents, though rarely commanding the latter price. Poultry is often on the tables of all who desire it, and is esteemed wholesome food, and, considering the waste in each, as cheap as beef.

Turkeys cannot be profitably raised on small farms and in thickly-settled neighborhoods, as they require a wide range, and where they can enjoy it will not only provide mainly for themselves until near autumn, but will also be of much service to the farmer, in destroying great numbers of grasshoppers and other insects that infest the farm. Indeed, some years, when grasshoppers are numerous, a flock of turkeys on the farm will save whole crops of grass and grain.

There is no more difficulty in rearing turkeys the first two or three months than in rearing common fowls, and the same rules are applicable to parent and chick. The nest for sitting should be in a dry and secluded place, where the hen will not be disturbed—neither approaching the nest to turn the eggs or to feed her—she will perform the first duty herself, when it becomes necessary, and come off for food when she requires it. It is very rarely the case that the chick needs any assistance in extricating itself from the shell, and many are injured by an impatient intermeddling with a matter which they understand, and will perform perfectly well, if left to themselves. Nor should they be interfered with for at least twenty-four hours after being hatched—they want quiet and the warmth of the mother—not food. But if they leave the nest and appear to be in search of food, place a little wet corn and cob-meal before them, or corn, wheat or barley, pounded into quite small pieces.

Many foolish notions exist among poultry breeders, and many practices prevail which are a good deal worse than useless, and which some of the books on poultry—we are sorry to say—still inculcate. Almost any treatise on the subject will give some 20 or 30 pages on *the diseases of poultry;* but as it is much easier and better to *prevent* disease than to *cure it*, we shall recommend none

of the medicaments or nostrums employed. When poultry is properly sheltered and fed, disease will only be the exception to the rule of general health. Want of proper food, irregular feeding, too many occupying a small space, exposure to cold, and more than all these combined, *exposure to wet*, are the prolific sources of disease in the poultry-yard.

We believe that exposure to *wet* and *cold* is *the principal cause* of loss of the young of all kinds of domestic fowls, including even ducklings. Nearly the whole dismal catalogue of diseases—the pip, or gapes, diarrhœa, indigestion, asthma, fever, consumption, moping, rheumatism, roup and vermin, may be traced to this. We have lost 50 chickens in a single storm where wind and rain has found its way to broods which we supposed were safe,—and it was 20 years before we discovered a remedy. Now we rarely lose a chicken by disease. After taking young chickens or turkeys from the nest, *place them upon a tight scaffold in the barn*, and tie the mother there, where they will be kept from wind and rain, and if fed regularly upon a variety of food, they will remain healthy, and grow with wonderful rapidity. Keep them in this position until sometime in May, and then if they are placed in coops, do not let them run at large during rainy weather, or while the grass is wet with dew in the morning. Observing these simple rules, there is no difficulty whatever in rearing young turkeys or chickens.

1. Protection from *wet* and *cold*.

2. Sufficient room, or range, so that they may not be crowded.

3. A variety of wholesome food and water, with access to broken bones, oyster shells, gravel or old mortar.

4. Perfect cleanliness.

But turkeys must have a wide range; to confine them would be about as great a departure from nature as to expect the pear from a willow, or a fleece of fine wool upon the back of a calf. Feed the flock of turkeys habitually at night near the buildings, and thus induce them to come to roosts prepared for them in high places, to which they may have convenient access. Cared for in this way, the loss will be trifling, while the profit will usually be larger than from any other item on the farm where the same amount of capital is invested.

If fed liberally as autumn approaches, and continued until market time, there will be no need of shutting them up for fatting; they will not only become fat enough, but their flesh will be tender, juicy and sweet. These statements grow out of an actual experience of many years in rearing turkeys and other fowls.

TO PREVENT IRON FROM RUSTING.—Warm your iron till you cannot bear your hand on it without pain to yourself. Then rub it with new and clean white wax. Put it again to the fire till it has soaked in the wax. When done, rub it over with a piece of serge. This prevents the iron from rusting afterwards.—*N. Y. Far. & Mech.*

For the New England Farmer.

LABOR IN STATE ALMSHOUSES.

SIMON BROWN, Esq.:—Dear Sir,—Since your election to the State government, I have desired to say a word or two to you in relation to the agricultural department of the new State Almshouses, the more as I am aware of your experience in all that belongs to the culture of the soil.

Gov. Gardner, in his message, expresses the proper views in regard to these institutions, especially in what he says of work-shops, and of practising strict economy.

"Industry and Economy" should be a motto to be engraven on the door-posts of every workshop, kitchen and bakery, in every pauper establishment in the country.

To ensure the most economical and productive management requires a very considerable degree of skill on the part of the superintendent, in the adaptation of the crops raised, to the wants of the inmates, more than to the demands of a neighboring market,—and at the same time, in addition to this, to provide, in a portion of the agricultural operations, opportunity to employ that kind of light labor which is always to be had in abundance in pauper and reformatory establishments.

Attention should be given to raising such staple crops as go to make the food of the inmates. Herbs have been found profitable to raise for market; most of the labor necessary for their cultivation can be done by boys, and a whole large crop may be sent to market at one time.

It has been the custom at some of our city establishments, to engage in market gardening, sending quantities of green produce to our markets, in daily competition with our neighboring farmers. This is not good management, because this class of produce requires the hiring of skilled laborers, while some of the inmates, who might have been employed on coarse or staple crops, are compelled to remain comparatively idle.

I am aware that there must be shops for the picking of oakum, hair, &c., to furnish employment for the winter, and for those who are partially disabled, but for the health of those in the establishment, as much out-door labor as possible should be done.

These institutitions should be conducted so as to save the expenditure of money in every practicable manner. No money should be paid out for staple crops which can be raised in Massachusetts.

In the management of institutions of this class, much can be saved, by a careful supervision of the matron over the store-rooms from which the clothing and provisions are given out,—sometimes these departments leak in such a way as to make the expense of their support unnecessarily increased—but this does not come within the subject we are considering.

I am very respectfully, yours, &c.,

Cambridge, January 30, 1855. G.

THIRD LEGISLATIVE AGRICULTURAL MEETING.

Reported for the New England Farmer,
BY WILLIAM W. HILL.

The third meeting of the series was held at the State House, on Tuesday evening, Jan. 30.

Lieut. Governor BROWN presided, and opened the meeting with some interesting and eloquent remarks upon the general importance of agriculture. There is, he said, in the community a great want of confidence and interest in the subject. Persons engage in agriculture who have long been accustomed to other pursuits; they wish, as all of us do, to enter at some time upon the cultivation of the soil, but do so without any definite idea of what is needed in their new vocation, or what ought to be its profits. Most of those who engage in farming do so, not from choice, but from the force of circumstances, and without well defined ideas of plowing, draining, manuring, subsoiling, putting seed into the ground, its quantity, manner of covering, &c.—All this needs reform, and such meetings as these are of great utility in spreading information and awakening interest in the subject. One great obstacle in the way of a rapid extension of good farming is a foolish prejudice which prevails considerably among farmers against anything which appears in newspapers or books in regard to farming, which, after all, is only the printing of the farmer's actual experience. Science is just what the farmer needs. The fallacy of this antipathy to book farming was convincingly exposed.

Mr. BROWN also dwelt with much force and truthfulness on the utility of Farmers' Clubs.—There is no way in which the cause of agriculture can be advanced so effectually as by the formation of these institutions in all the towns of the commonwealth. They promote investigation, and bring out facts important to the farmer. Another most excellent method for the farmer to improve his mode of cultivation, is, for him to spend a day as often as once a month in visiting the farms in his vicinity, examining the farming tools, going over the fields, learning the system of cultivation, &c. Nothing is more important to the farmer than a habit of constant, close observation, of all matters pertaining to his calling; and wherever he finds an improvement, let him take it home with him to his farm and apply it.

The speaker next alluded to the potent, adverse influence which is exerted by the sentiment of the female portion of the community in regard to the farmer's life. Until our young women cease to manifest such a preference as they do for those of the opposite sex who are engaged in the law, in medicine and in mercantile pursuits, we can never expect to accomplish much for agriculture. It is impossible. With such a powerful influence exerted upon them, our young men, who ought to cultivate farms, fly from the country and crowd the cities; and until female influence is won to the cause of the farmer, it will continue, and agriculture suffer. This point was very happily and eloquently illustrated and enforced.

Mr. BROWN concluded by suggesting *Indian Corn* as the subject of discussion for the evening.

Mr. FAY, of Essex county, desired to explain, that in his remarks at the previous evening, while he believed that our soil and climate were both adapted to the successful cultivation of wheat, he did not wish to be understood as considering it more profitable than any other crop. In his opinion, maize was the great crop of New England, it being peculiarly adapted to our climate, with its hot, dry summers, and severe winters. He had paid considerable attention to it, and usually got good crops. It can be raised on almost any soil, with proper attention to preceding crops and cultivation. He would cultivate it after a green crop, and would not follow it with either grain or grass, but roots.

Mr. FAY spoke earnestly in behalf of farmers' clubs. Farmers are behind the age in mechanical contrivances for performing labor, and he saw no method of getting at mechanical results except by association among the farmers, for they cannot afford to experiment singly with machines. Our hay should be cut and made by machinery, for the high cost of labor absorbs a great part of the profits. He was confident that the hay crop could be got with a machine at half the expense where manual labor was employed. A mowing-machine costs $150; but it is only necessary for the farmers to club together, subscribe two or three dollars each, and make the machine do the mowing for them all. So with a machine to turn and make the hay. With both machines, farmers could cut their grass, make their hay, and house it, all in one day. The expense, divided among many, would be light. The same may be said, also, of planting corn, potatoes, turnips, &c., which can all be done by machinery, and by one machine for twenty farmers. At the south and west, machines are coming into general use, and if we would compete with those sections, we must resort to machinery.

Mr. SHELDON, of Wilmington, remarked that he deemed *Indian corn* the most profitable crop we have. In speaking of it, we are apt to think only of the corn, and nothing else; but if we look closely, we shall find that it is not a great exhauster of the soil, but is excellent in preparing it for grass, while corn fodder, well cured, will produce more milk than hay will. The manure needed for corn should not all be charged to it, for, after the corn, three or four good crops of

grass can be got without manuring. For making manure, too, corn is better than is usually supposed. One hundred bushels, properly fed to cattle or hogs, will make two hundred bushels of as good manure as can generally be bought. In cultivating corn, there is no danger of too frequent hoeing. The best field the speaker ever raised, he hoed for seven weeks in succession, and was satisfied that it paid well. One great benefit of such a practice is, that it brings the corn forward a week or fortnight earlier.

Mr. Brown related a case in his own experience, where he planted a piece of corn, manuring one portion highly, and letting the other go without any dressing whatever, but hoeing it often instead. The result was that he got nearly an equal crop where there was no manure. But he would advocate high manuring, *with frequent hoeing*. The importance of a thorough pulverization of the soil is not properly understood by the farmer, and should receive his earnest attention.

Mr. Flint, Secretary of the Board of Agriculture, said that Indian corn had always seemed to him the pride of New England, being indigenous to the soil and peculiarly adapted to the climate. No crop bears our severe droughts so well, and there is none which we can rely upon with more safety. Of late years, it is the universal practice among the best farmers to plant corn on a flat surface, without hilling. Cultivated in this manner, with deep plowing, the speaker believed that it would seldom feel a drought. If the corn is hilled, the roots are often laid bare to the scorching sun. Of varieties, there is one which has been tried for a year or two very successfully, called the *King Philip*. He had distributed some hundreds of papers of the seed, and the result had been eminently satisfactory. A kind, called the *Canada corn*, is raised in Maine with much success. Large crops, of 100 bushels and upwards per acre, are raised in Plymouth county, of a variety called the *Webster*, or *Plymouth county corn;* but it is said to shrink more during the winter than the Canadian corn.

Mr. Clark, of Waltham, detailed an experiment made by him the past season in raising corn. He prepared two acres, plowing thoroughly and manuring deeply. One acre he planted about the middle of May, and the other about five days later, with an addition of 250 lbs. of guano to the manuring. The yield showed a balance in favor of the guano lot of about 15 per cent., while it also suffered less from the drought than the other. One lot was planted with 8 rowed white, and the other 8 rowed yellow corn. The speaker believed that corn was pre-eminently adapted to the climate of New England, and was of the opinion that it suffered less than any other from the drought last season. But he doubted whether the corn was as profitabte as the potato crop. A bushel of potatoes can be raised easier than one of corn, and are worth more in the market. One great advantage of the potato crop is, that farmers are in no danger of being deluged with importations from the West or South, as in the case of grain, for they are not raised to any extent there. He thought farmers should pay more attention to them than heretofore.

Mr. Fay alluded to the remark of Mr. Sheldon in regard to corn fodder, as an important consideration in estimating the value of the corn crop. His own practice is to cut the corn, even before it has quite turned yellow, and stack it with the corn in the shocks, allowing it to remain until dried, when it is husked in the barn and the stalks put one side for use. The stalks are chopped up fine, and by means of a small steam apparatus are steamed for six hours, when they are ready to be fed to the cows, who eat it freely; sheep eat it precisely as they would turnips. The expense of the steam apparatus, which is kept in operation in connection with a furnace, is about ninepence per day, and it feeds six or seven cows and a flock of sheep. The quality of the milk is much improved by it. The speaker thought that the value of corn fodder and the amount of manure which corn makes, in addition to its intrinsic value, placed it before the potato as a profitable crop.

Mr. Clark expressed himself convinced of the correctness of the last speaker's views, but remarked that in ordinary seasons many more bushels of potatoes can be raised than of corn.

Mr. Sheldon thought that the comparative profit of corn and potatoes to the farmer depended very much upon the nature of his land. Last year on good corn land he did not get over 50 bushels of potatoes, while he got 35 bushels of corn. On swamp lands he had got 400 bushels of potatoes to the acre. In such a season as the last, corn would be the most profitable. In raising corn, he had found that when plowing up grass land it was best to plow in August, running 9 or 10 inches, and in the spring let the old sod remain without cross-plowing. The crop would be better.

Mr. Buckminster of the *Ploughman*, was happy to notice that the value of the potato crop had not been overlooked by the speakers. He thought the profit on a crop depended on the kind of land cultivated, and every farmer must judge for himself. He would like to know which was best for fodder, sweet, yellow or Southern corn?

Mr. Hall, of Hampshire county, said he had fed green corn fodder to his cows; they ate it greedily, and gave more and richer milk. His horse also thrived remarkably on it. He fed the

ears while yet in the milk to his hogs, and the pork they made was the finest and sweetest he ever tasted, and its superior quality was often remarked by friends who ate of it. He was satisfied that there was nothing which would make so nice pork as green corn while in the milk.

Mr. Poor, of Andover, made an interesting statement in regard to his manner of raising winter wheat, and setting forth the superiority of the wheat crop as a profitable one for New England farmers; but as his views and experiments have been published in the *Farmer* we omit any sketch of his remarks.

Mr. Stockbridge, of Hadley, narrated a case in his own experience, wherein he fallowed a crop of tobacco (a very exhausting crop) manured with 25 loads to the acre, with a crop of winter wheat, planted in September. The ground was flat, and wherever the water collected and froze in the winter, the wheat was killed, so that only about half an acre came to maturity; that, however, yielded 20 bushels. A piece of winter rye, planted on a similar piece of land, and subjected to the same influences, did not suffer from being winter killed. In his opinion, the wheat crop, although often a very profitable one, was not reliable, and New England farmers must depend on corn and winter rye for certain returns.

At 20 minutes to 10 o'clock, the meeting adjourned.

The attendance was good, and among the audience we noticed *one* lady, a very pleasing feature, certainly. We hope other ladies will take the hint and attend. They will find the meetings both interesting and instructive. If the women would only take an active interest in agriculture, and manifest it by their presence at such meetings as these, an impetus would be given to agricultural improvement which could be gained rom no other source. At the same time they would gain much valuable information.

HOUSES FOR BIRDS.

Messrs. Editors.—There are but few gardeners, farmers, or fruit-growers, who do not see the advantage to be gained by having the number of summer birds increased. Yet there are not many who do anything in the way of providing houses or nests, that this end might be obtained. If a cheap article were manufactured, tasty and ornamental, they would find a ready sale at the agricultural stores. Will not some of your readers furnish plans of bird-houses for different kinds of birds? That might induce some maker of Yankee notions, to add this branch to his trade. No present would be more acceptable to a child, than a pretty bird-house, costing but a shilling, where he could have what he could call "his birds," and which would afford him much amusement during the summer, and should there be a dozen children, and a house for each, there would not be too many.—*Country Gentleman.*

For the New England Farmer.

CULTURE OF HOPS.

Mr. Editor:—Will you be so kind as to give your friends in this region some information in relation to *hop culture?* This subject is exciting considerable interest in our community of late, and any information you may be able to impart through the *Farmer*, will be a favor to numerous readers of your valuable paper.

In particular, will you reply to the following questions? (*a.*) Are hops used to any considerable extent for other purposes than brewing? And what purposes? (*b.*) Is it probable that the price and the demand for hops, for years to come, will be such as to make it a safe and profitable branch of farming? (*c.*) Is the hop culture restricted to any section of our country, or is it liable to be ruined by extensive culture? (*d.*) The mode of cultivating and preparing for market, &c.

Benjamin Comings.

Greensboro', Vt., 1855.

Remarks.—(*a.*) Hops are largely used in this State for yeast and for medicinal purposes, yet by far the larger proportion is used for brewing, probably at least fifteen-sixteenths.

(*b.*) The price and demand for hops is somewhat fluctuating. The price, for several years in succession, was so low that many growers in this State abandoned the cultivation of them. Since 1848 the price has risen, and for the last five years they have been very profitable. There are few crops on the price of which we can calculate with so little certainty as upon hops. The cost of raising and curing a pound of hops is about five cents. The average price for the last four years has been about twenty-five cents per pound. The average price for the last forty-nine years is about thirteen cents per pound. In 1819 they sold as low as 5 cents a pound; in 1829 at 5½ cents; in 1847 at 6 cents; in 1848 at 7 cents; while in 1849 they sold readily at 12½, and in 1850 at 25; and during the last year, they have been known to sell as high as 40 cents a pound. No agricultural produce is so fluctuating in price as hops.

(*c.*) The hop has a wide range of cultivation, and there is nothing to prevent competition in them except the want of suitable soil.

(*d.*) Hops require a strong, rich soil, well manured. Good corn land is generally good hop land. The land is to be plowed deep, say from 8 to 12 inches, and manured by spreading and cross-plowing in. It is then furrowed as for corn. The hop plants may be put in every other row, bringing the rows of hops about eight feet apart, and planting in every other hill, brings them eight feet apart both ways. Corn or potatoes may be planted among them the first year. The first year they produce no hops. The second year they are to be poled and trailed, or tied carefully to the poles. In the spring of the year the hills should

be opened and the running roots cut off, and a shovel-full of good compost manure thrown upon the hill and covered with the hoe. They are usually to be plowed and hoed three or four times in order to keep them free from weeds.

Picking usually begins about the first of September, and after this they are dried carefully in the kiln, over a charcoal fire, and packed in bales when they are ready for market.

For the New England Farmer.

MORTGAGES ON FARMS.

Mr. Editor :—In my former article on "Mortgages, &c.," I attempted to show what I understood by the principle, and how it was or might be applied in cases of necessity in farming matters. And in reply, "Reader" has given me his experience in several instances, and thinks it may be a sample of what mortgages come to in general. My own idea is, that he has given us his experience in the matter, which is all very well as far as it goes. Now my idea farther is, that were he to go through the State and canvass this matter in regard to mortgages among farmers, he would find hardly any two men who told the same story. In fact, the whole thing turns on "management," as I understand it; and, in fact, like any other business, more depends on the "men" you have to do with, than in all other matters put together. Some men will do well enough with a mortgage over them, while others, apparently going along in the same track, will fail. What does this prove? Why, if it proves any thing, it says, in substance, that in this matter more depends on "men and management," than all other outside causes you can name.

My own experience is not just what "Reader's" is on "mortgages," not having gone through all those operations. In former years, my late father began the world in a small way, of course buying his land by pieces, generally on the "mortgage" plan, as usual. In later years, when he made additions to his farm, it was done by a "note," often depending more on who the parties were he had to deal with—sometimes with an "endorser," or not, as the case might be. But all the operations came to the same thing finally, namely, the land must be paid for in time, or else be forfeited and lost. Of course, when the land was paid for, then the "notes and mortgages" were killed, and not till then. So, in reality, he never knew any difference whether the land was mortgaged or not; the idea was, of course, to pay for it in the shortest time. He, of course, never allowed himself to believe that the land could not be paid for in time, by good management, for he knew better. Sometimes he could no more than meet the interest, and, in other years, hardly that; then, again, he could pay some of the principal, and so on till the thing was finished.

Now, the point at issue betwixt us and "Reader" is, when and where should "mortgages" be allowed, and when not? I attempted to show, in a former article, how and where they might be allowed by the farmer. "Reader," in reply, gave me his own personal experience on "mortgages," which, to my own idea, does not meet the issue in question. But, as I understand "Reader" now, he is "death" on mortgages in general; but, under some circumstances, they may be allowed on the purchase of a farm, but never to raise money to make "improvements" on the same very well. Now I wish the readers of the *Farmer* to remember, in my former article on this subject, that I only recommended the mortgage plan to raise means for farm improvements when all other plans failed, and I say so now. But when it came to this, then I would put a mortgage on the farm for improvements as soon as I would to buy the land. And why not? Now, suppose a young farmer to come in possession of a poor, worn-out farm, and, after he has made some improvements in the way of a house for his family, barn, &c., he finds himself without a red cent to commence farming with. What is to be done? "Reader," in this case, would probably say the young farmer must look up some job outside of the farm, in a neighboring factory, or "hire" out by the month to a farmer until he can raise money to begin farming with. And what is to be done with the farm in the meantime? Why, nothing, of course. My plan would be to tell the young farmer to go on to the farm at once, and give his whole time and attention to it, never leaving the farm for any "outside" job that may offer, so long as he can earn three shillings or fifty cents a day for his work at home on the farm. The young farmer has nothing else to depend on to live but this worn-out farm. Then, if he works this farm on the starvation principle, how long will it be before he, in turn, will get starved out by such management?

It is, then, as we said in our former article, that the young farmer must see that he cannot afford to let his land lie idle or go unimproved. Of course it is understood that, in the first place, the young farmer understands his business, and that he knows just what course to take to renovate his land in the shortest time. All that is wanting is the ready capital, which must be had some way; he must begin by using as many improved farming implements as his means will allow, always remembering that good labor-saving farm implements are much cheaper in the long run than manual labor, in these days on the farm. Then, the young farmer must supply himself with good agricultural papers, books, periodicals, &c., and not think that part of his farming capital is wasted when spent in this way. For one of the great pull-backs in farming is a want of knowledge, which, in fact, is ahead of all other wants on the farm, when applied to practical farming. If this fault could be remedied, many a "mortgage" would be paid off with no difficulty at all, which has been left to be handed down from father to son.

Does "Reader" suppose that the parental farm, on which he was turned off on account of an old "mortgage," could not have been paid, (even in his father's day,) if the management on the farm had been equal to the best farm improvements of the present day? I do not know, of course, what "outside debts" "Reader's" farm had to meet; but I do not hesitate to say, if no uncommon debts but what grew out of the old "mortgage" was on the farm, then the system I have named above, if faithfully carried out, would have paid it. Has "Reader" a doubt of it? I see very

plainly that "Reader's" idea is, that if old mortgages are paid at all, in most cases the money must come from some "outside operation," of which the farm has nothing to do with. In proof of this, he gives his own experience in No. 3, where the mortgagor never paid a cent of either principal or interest; but, in after years, it was paid in full by a son, who was a merchant's clerk. Now what does this prove to us? It looks as though the management on that farm was of the loose kind, or, in other words, just no management at all; but such as would fetch any man to ruin in time, if well carried out. In proof of this doctrine, where was the son? Why, he was in a neighboring village, or city, acting as a merchant's clerk, when he should have been upon the farm. Why, the son says, like thousands of others, farming is of no great consequence any way, as a living can be got, if you work hard enough, but no money in reality can be made. If I mean to get above a scanty living, I must "pick up my duds," go into a merchant's counting-room or lawyer's office, and try to make some money, and, in reality, be somebody. Does "Reader" see any reality in a picture of this kind? If so, cannot he see some reason why more old "farm mortgages" are not paid off than there are or have been in years past?

To us the whole thing in regard to mortgages lies in a "nut-shell," namely, for success all depends on men and management. My idea is, that the "farm should be made to carry the farm on its own back"—or, in other words, the farm should be made to pay its own way, that is, give the farmer his living and pay all necessary expense. Why not? For years, or ever since I was a boy, I have heard farmers talk after this fashion: Farming is well enough if you have got a farm of your own; but as for making money at farming, it is out of the question; you must do what you can yourself, and let the rest go; you cannot afford to "hire" any help, because it wont pay. We got in all our hay and harvest, said another farmer, and only had to "hire" so many days' work; just as though some feat had been accomplished. Now, if a farmer's labor will pay for itself, why cannot a hired man's be made to pay its own way, and leave a little profit to the farmer? For, in reality, it is these extra days' work on the farm that pay, after all. I repeat what I have often said before on this point, that there is no extra labor hired out in any business that will pay better than well-directed labor on the farm. Of course, the farmer must go with his men, and see that the work is done as directed, and not trust to the "honor" of his men to have the work done. But, then, what are young farmers to do that have just started? Nine-tenths of them have to begin with nothing; of course their farms must be paid for under a "mortgage," or never paid at all. Then they must have capital in farming implements and tools; never trust to your neighboring farmers to "borrow and beg tools" to work with, as this is a shiftless policy, followed by too many farmers; own your tools, and then work with them. To young farmers who commence in this way, I say that there is no difficulty at all but that you will come out right, with patience, perseverance and good management, to carry out the system, in time.

I never supposed that "Reader" meant to do me injustice by unfair comments on my former articles, or by unjust criticisms. But still, when he began to talk of "Bagging up shade and selling it at fifty dollars a ton as a fertilizer," I thought it had a strong look that way, as though he might place me on a par with some other "sellers of fertilizers" that I could name, but should rather not do so. Still, I may be wrong in this matter; if so, then all is right.

One word more, and I have done. To those farmers of all classes who own farms, and think they cannot afford to improve them, I say, sell out and quit the business at once, and enter on some business that you can make something or have some confidence in. For what satisfaction is it to follow a business that you cannot make any thing at? When I hear farmers commence on a complaining tirade that they cannot make any thing at farming, or scarcely get a living, I never want to hear them talk, for I am satisfied that there is something wrong in the men or their management. Yours, &c., L. DURAND.

Derby, Ct., Jan., 1855.

For the New England Farmer.

PEA NUTS AND POP CORN!

MR. BROWN:—What do you suppose some of our Southern friends think we have come to, in these "hard times?" Why, sir, I have just cut out the following, from the *Bayou Sara Ledger*, Louisiana. It is represented as unusually rich and varied. These luxuries were enjoyed at a public supper at the *North*, in December, 1854. Here is the

BILL OF FARE.

SOUP.
Pea Nuts.

ROASTS.
Pea Nuts. Corn, *a la Indian.*

BOILED.
Pea Nuts White Corn.

SIDE DISHES.
Pea Nuts, garnished with Pop-Corn.
Pea Nuts, with Pop-Corn Salad.
Pop-Corn, garnished with Pea Nuts.

FIFTH COURSE.
Pea Nuts. Pop-Corn. Ice Water.

DESSERT.
Pea Nuts—roasted.
Tucket Corn—popped.
Water—with Ice.

LIQUORS.
Water. Ice Water.
Cold Water—with Pea Nuts.

FINALE.
Tepid Water—with Pea Nut Shuck Toast.

The *Bayou Sara Ledger* is mendacious! The editor should have a "Report of Brighton Market" fastened for a week to his spectacles. If we are ever reduced to "Pea Nuts and Pop Corn" for a public set-out, it must be owing to a great expansion of his "peculiar institution."

Will the *Ledger* man keep *posted* up?

Concord, Mass. W. D. B.

TURKEYS TO KILL GRASSHOPPERS.—I would advise your correspondent from Kentucky, who is annoyed with grasshoppers, to keep on his premises a flock of turkeys. I was surprised a few years ago, at seeing large flocks of turkeys in the meadows of a neighboring farmer, an enterprising,

close calculating man. He told me that they had been annoyed with grasshoppers, and that by keeping turkeys a few years, he got rid of them. I have since kept a flock on my farm, and think they more than pay their way, especially where a farm is infested with grasshoppers.—*Country Gentleman.*

SALINE MATTER IN SOILS.

One grain of saline matter in every pound of soil measuring one foot in depth, is equal to five hundred pounds per acre. And this amount, insignificant as it appears, in the abstract, is more than is exhausted in forty years, supposing the grain produced upon it is sold off, and the straw and green crops are regularly returned to it in the shape of manure. In most cases farmers rely too confidently on what they have been traditionally taught to regard as the recuperative or self-replenishing power of the soil, a power by which it is blindly conceived to be capable of re-attaining fertility through its own unassisted energies when it has been thoroughly impoverished by long cropping, and deprived of almost every element upon which fertility, or the power of production, depends. Such a capacity does not belong to any soil.

Suppose the most affluent soil—a garden, for instance—to be cultivated for a series of years without any application of manure. No one can doubt that exhaustion would be the result, and that the exhaustion would be precisely in proportion to the amount or bulk of the crop produced. The same principle operates elsewhere. All the elements abstracted from the soil by vegetables, must be returned to it, or it will be deteriorated in proportion to the quantity of the elementary substances withdrawn.

Let us examine this question somewhat more minutely. Sprengel, a celebrated chemist, and long at the head of the Agricultural School of Prussia, published an exact analysis of two productive soils; the first, a fine alluvial soil, overflowed by the ocean, and for sixty years cultivated in wheat without manure; the second, a soil producing excellent crops of clover, beans, rape, potatoes and turnips, when manured with gypsum. Of these soils one thousand parts contained, after washing,

	No. 1.	No. 2.
Soluble saline matter	18	1
Fine earthy and organized matter, (clay,)	937	893
Silicious sand	45	160
	1000	1054

Now in the case of the first, the alluvial soil, the exhaustion produced by the crop was counterbalanced by the alluvial deposits, and consequently, so long as its annual or periodical submergence by the water, its fertility would be maintained unimpaired; in the latter, gypsum supplied the deficiency not made up by the decay of the roots, straw, and other products of the plants left upon the soil.

For the New England Farmer.

PLANTING TREES.

Mr. Editor:—I perceive that the committee on agriculture have been instructed to visit the State Farm at Westboro', to inquire as to the uses made of the lands on this farm, and the expediency of making additions thereto. This brings to mind a suggestion made the last year, (see Vol. VI. *New England Farmer*, p. 309,) in these words: "What more delightful appendage to such an institution, than a flourishing grove of oaks?" Let different modes of rearing be tried, and different varieties be planted, and their various progress noted and recorded; and, *sixty years* hence, when the boys who may have assisted in depositing the acorns shall be of the number who may be entrusted with the care of the institution, they will bless the memory of him who suggested the experiment. Let ten acres of the land be thus planted with the English white oak, (experience has shown that this variety advances in size twice as fast as the American white oak,) and there will be no hazard in guaranteeing that in *thirty years* the value of the land will be increased *four-fold*, and in *sixty years ten-fold*. What better deposit can be made? And then, think of the enjoyment the boys would experience in hunting squirrels in such a grove! "A word to the wise is sufficient." Essex.

January 29, 1855.

For the New England Farmer.

NOTE OF THANKS.

Messrs. Editors:—I am much indebted to you for your monthly paper kindly sent me, some years past, and small tribute pecuniary or agricultural, horticultural, floral or pomological, have you received at my hands in return. But please accept, in lieu of a more substantial and valuable consideration, my very sincere *thanks for the New England Farmer.*

1. I thank you in behalf of plow-boys. I remember well when I held this office, and while pacing by the side of the team over my father's fields, how I longed for something to awake the mind, and prompt interesting thoughts, so that plowman or driver might find pleasant topics for conversation. Alas, for the weary, dreary monotony of our work, with nothing on hand worth thinking of or talking of, as to our business of dull, heavy *plow-jogging*. (*a.*) You furnish ample materials to fill up that sad vacuum in the mind of the younger and older field laborer. Great mental stupor must there be, if your articles do not prompt thoughts, inquiries and reasonings, in all who are working the soil, or gathering its products, and thus prevent their minds from lying waste, or overgrown with noxious weeds.

2. I thank you for your influence, adapted to attach farmers' sons to their dignifying employment, upon soil consecrated to freedom. The plow-boy's lash (ever to be used wisely and mercifully) falls not upon the cowering slave, but upon the dull or wayward ox, to prompt him to duty. You labor to inspire an agricultural taste,

and to show the pleasure and advantage of well-directed skill and enterprise applied to land on which our honored fathers toiled. I see no means better suited to train up and retain in all our old towns, a substantial, intelligent, worthy yeomanry, such as must ever constitute the bone and sinew of New England's strength. The hot haste to be rich often tempts to speculation, and bold adventures in untried spheres, far away from home, resulting, many a time, in disappointment and sorrow.

3. I thank you for laying open so many fields of investigation connected with agriculture, which enlist so much talent and science, showing that there is range for the powers of most gifted minds, in the domains over which extends the farmer's sway. We have learned effectually, that ignorance and blind tradition will not make our fields teem with their varied fruits, and that the scientific, enlightened mind, is demanded to direct the laborer in the proper tillage of the earth.

4. I thank you for calling our citizens away from dangerous strife and political turmoil, to one grand, common interest, not only of New England, but of our whole country. Patriotism bids you good speed, and gathers all her true-hearted sons, in fraternal fellowship under the banner of peace which you lift on high, displaying on its snow-white folds the olive-branch and dove. J. Lee.

Remarks.—(*a.*) How vividly has this sentence brought to mind the long days of team-driving, both in the fields and on the road, of our early youth. It brings a pang now, to remember the tedious hours up and down those interminable furrows, with a plowman at the handles as sluggish and drowsy as ourselves, after the novelty of the first few "rounds" had passed away. To him, there was no beauty in the path—no shining ore—no stores of grain or grass, no germ of bud, or flower, or fruit; the furrow, a furrow "was to him, and nothing more." To him, it had never been taught that the clods of the valley contained any principle of life, and their animated beings were pressed under his heel with thoughtless indifference. But when *another* came, him, honored sire, from whose lips fell the first and early lessons to our impatient mind, how soon supineness and indifference departed. Flowers sprang up along the path—the furrows were peopled with animated life, indispensable to the whole plan, and affording texts for the most interesting and useful discourse. Standing over the upturned nest of the field-mouse, and beholding its "wee bit home in ruins," elicited a stanza of the Farmer Poet—

"Wee, sleekit, cow'rin', tim'rous beastie,
O, what a panic's in thy breastie!
Thou need na start awa sae hasty,
Wi' bickering brattle!
I wad be laith to rin and chase thee,
Wi' murd'ring pattle!"

and then with easy and natural transition, he would give a brief sketch of the life of our brother farmer and poet of nature, Robert Burns. So the denizens of the air afforded a theme. If wild geese were winging their way north to those inhospitable regions, where even man dares seldom approach,—or if their leader pursued his trackless way south, the habits of this interesting part of creation were explained, and the cause of their particular movements given. Now, while the team rests, comes our old friend, the bob-o-link, and on a neighboring maple, gives us his first song of the season. Then their habits were given; how the males change their plumage in the autumn, and both sexes congregate and pass south in flocks, feeding on the wild oats, on the banks of the great rivers, or resting in the extensive corn-fields, after having become fat. Then what a wonderful instinct they observe in the spring. They are no longer seen in flocks, but scattered all over New England, two or three pairs having their habitation in every green meadow in proximity to the dwellings of man; few or none being found in secluded places. And so, with free and pleasant discourse of the principles involved in the labor to be performed, of the animate and inanimate objects about us, of soil, tree, flower, fruit, stock, crops, and of the love and wisdom of *Him* who gave and controls them all, the way would grow short, the labor light, and the evening found us returning to the loved ones at home as equally pleased as ourselves, with the rational and interesing duties that had fallen to the lot of each through the day.

ACKNOWLEDGMENTS.

We thankfully acknowledge the receipt of numerous and most excellent communications upon various topics, and from gentlemen of great practical knowledge of the subjects, which they discuss. Deducting a paper or two indicted by some young friend with one foot on Helicon and the other on Parnassus, and whose wild hexameters have probably saved him from a fatal collapse, and we have not one among them all but contains sound and valuable instruction. Some of them will be deferred for the present, in order to present them at more seasonable moments; but all shall have a place, first in the weekly paper, and then in a more permanent form, in the monthly *Farmer*.

Farmers! *Now is the time to write.* Write for some paper, if not for this. Review your operations of the past summer; take up any particular crop. Begin by setting down first the nature of the soil, whether it is high or low, wet or dry, drained or not; then the time and manner of plowing, and the entire preparation of the field, including manure, for the reception of the crop. Continue this process with other similar lands appropriated to the same crop on your own

farm, or assist your neighbor in the same investigation. Here, then, you will have the basis, the facts, for telling the whole story, and it only remains to weave them together by the use of common, natural language, easily comprehended by all. Though truths communicated in this manner are valuable to the reader, they are infinitely more so to him who analyzes the facts and communicates them—because that process fixes them indelibly on his own mind.

In this manner any of the operations of the farm may be made to assume an interest and importance which they have never before possessed. They become, not only a store-house of rich fruits, and flowers, of grains, herbage and cattle, but a *Book of Revelations*, incessantly unfolding to our wondering senses the manifestations of Divine love, wisdom and power. This is not only a mutual labor between us, but a mutual benefit—it is difficult to tell who is the debtor. Intercourse with good farmers, at your clubs, social gatherings and visits to your homes, is to us as a perennial spring to the thirsty soil;—with these, and constant recourse to books, which are the recorded experience of others, there should be no lack of interest or of sources of information to any of us.

When the attention is turned, critically, to any particular subject, whether it be field or garden crops, reclamation, draining, plowing, or to fruit and forest trees, that subject will soon assume an interest and importance which it has never had for us before; and nothing will so much increase that interest and fix the facts upon the mind as writing of them. Farmers, you have the facts—give them a tongue through the pen and newspaper.

Among the articles on hand, are two or three in relation to the *Basket Willow*, correcting some supposed errors in former communications, and describing minutely the proper soils, modes of cultivation and preparation for market, its value, amount used, and the sums annually sent out of the country for the raw article. These will be given in season to afford the necessary information to any who may desire to commence its cultivation the coming spring.

We have also received the first number of a series of short articles upon our *winter migratory birds*, from our accomplished friend and critical observer, S. P. FOWLER, Esq. Birds are intimately connected with our agricultural and horticultural operations, and their habits ought to be better understood.

CASHMERE AND THIBET GOATS.—Dr. James B. Davis, the original importer of those exceedingly rare and valuable animals, the Cashmere and Thibet goats, presented at the Georgia Agricultural Fair a fine collection of the pure breeds and their crosses upon the common variety. The pure Cashmeres have thus far proved perfectly hardy and quite prolific in the south, and their fleece, which is very heavy and abundant, is used in the manufacture of the finest Cashmere shawls and other costly fabrics of the Oriental looms. We do not hazard much in ranking this importation of Cashmere and Thibet shawl goats among the most important of recent southern enterprises, and predicting for the fortunate possessors of these animals the completest success. Dr. Davis lately sold one pair to a northern company at $1000, and the remainder of his pure bred Cashmeres have lately passed into the hands of a very successful and competent breeder of domestic animals, Mr. R. Peters, of South Carolina.—*Rural New-Yorker*.

For the New England Farmer.

PRUNING APPLE TREES AGAIN.

MR. BROWN:—You published a short essay, over my name, on *pruning apple trees*, in the January Monthly *Farmer*. Your good-natured Winchester correspondent, whose criticisms are always lively, hardly accepts my theory. He says—

"*Pruning Apple Trees.*"—As I am unsettled in opinion on this subject, I read everything relating to it with interest. Forest trees get along comfortably without trimming, and so do shade trees generally. But, says Mr. Brown, "apple trees grow with a superabundance of limbs that provision may be made for casualties, and an opportunity afforded the cultivator to *train according to his particular "taste."* Now that is very kind in nature, certainly; but it would save me much doubt and hesitation if she had labelled these "superabundant limbs" respectively, as the case might be, "jackknife," "handsaw," "axe," &c. If Mr. Brown is disposed to be offended by these remarks he must give the editor half the blame, for attaching that article on page 38 to his recommendations on "Beautifying the Farm."

To be sure, my good sir, nature *is* "very kind;" there is no mistake about *that*. As to the labels (an original idea) one who is pretty familiar with her alphabet always sees them.

Your correspondent thinks "forest trees get along comfortably without trimming." It is not settled that it "don't pay" to trim forests. Why dead limbs should be left hanging to a White Pine, to run through an otherwise clear board, bye and bye, is an open question.

The difference between forest trees and fruit trees is very apparent. The former are indigenous to the soil; the latter the result of importation and long years of patient training. Apple trees may get along comfortably, perhaps, with less care than many bestow, but to be of the greatest profit, attention and labor are indispensable.

"A Reader" will at once see that forest trees can ripen no fruit in their dense shade. Apple trees are very much thinned in the moist climate of England to admit the sun. What does the common observation prove, that "the apples from the sunny side of the tree are the fairest and best?" As to the "*particular taste*," I take it most men have a way of their own. I judge so by a glance at the orchards that have come in my way. The trees are trained in all manner of

shapes; some so high that a fishpole would hardly reach to the lowest limbs, and by nothing short of a fire ladder and a sailor could the fruit be gathered. Others I have seen trained so low to the ground that hardly a calf, much less a pair of oxen, could walk under the limbs.

As to "casualties," they are common and are to be expected. A heavily laden tree, even if carefully propped, will sometimes give way under its load.

I may add that fruit trees require pruning more than forest trees, because their culture is, in a measure, artificial.

Is "A Reader" as much "unsettled?"

Concord, Mass., Jan., 1855. W. D. B.

For the New England Farmer.

ABOUT PEAR TREES.

Mr. Brown:—Dear Sir,—I want again to say one word upon the subject of pear trees before I leave your paper, or rather, before it leaves me. I have, during the last ten years, given some attention to the garden culture of pear trees. I began, ten years ago, with planting out some half dozen from Long Island, one and two years from the bud, costing something like a dollar and a dollar and a half apiece. They had a growth of five and six feet. I put them into as good soil as there was in the garden, on the border of a bank raised about two feet, and manured and cultivated every year since; but I cannot make them grow.

During the last six or seven years, I have taken from the wild pasture land, partly covered with bushes, such wild pear trees as had got up beyond the reach of the cattle, and others that had been freely browsed by the cattle, and from two to six feet in height, and set them in my garden, covering two-thirds of the ground, from eight to twelve feet apart. They have all been cultivated alike, both those that came from Long Island and the others. The wild trees were sometimes worked the same year, in which they were transplanted, and sometimes the next after transplanting. The wild trees usually had a bulb, somewhat like that on an onion stalk, on some one or more of the minor roots. I have thus set out some thirty or forty trees of the native crab pear. The wild trees have grown far beyond my expectations, are now twelve and fifteen feet in height, and ten or twelve have borne fruit, two or three for several years, and I have refused ten and fifteen dollars apiece for some of them; while the nursery trees from Long Island have not made a foot of wood during the ten years, and have made only abortive attempts at fruit bearing. My experience would seem to warrant me in giving the preference to wild pear trees over those of nursery cultivation. I suppose some of these trees, before they were taken from the wood, were twenty years old. I have hitherto thought that pear trees could not be cultivated too highly; but I now think they can be in the nursery, but not after they are permanently located; it is somewhat different with apple trees. All trees need cultivation; but I think apple trees may be forced beyond a healthy and fruitful condition.

I have noticed and spoken of a *bulb* upon the main root of the wild pear tree, which is as hard and solid as any other part of the root. Has this enlargement any thing to do with the health and vigor of the tree, or not? It seems as though it could not be accidental, as it has been observed too frequently. The pear tree is long-lived and a rapid grower, in its wild state, shoots starting up from two to four feet in a season; and may not this enlargement be for the purpose of making larger drafts from the soil for its nourishment, or may it be a reservoir of moisture for the necessities of the tree in a dry season.

I have said that several of these trees have borne fruit, such as the Bartlett, Bilboa, Catalac, Winter Nelis, &c. I want to say one word in favor of the last, viz., *Winter Nelis;* I think it one of the very best pears that grows. One of my trees has borne this pear for three years, between two and three dozen the first year, fewer the second, and more the last. This pear ripens in December, and resembles in flavor the old St. Michael, in its most perfect state, and is destitute of the imperfection of the St. Michael. I want every fruit-grower to cultivate this pear. I have not had great experience, but I believe, and have understood from others, that it is a great bearer.

Thus, Mr. Brown, I have given you some account of my little experience in the cultivation of pear trees, and I think that I have not quite failed. M.

Topsfield, Jan., 1855.

For the New England Farmer.

LUNAR INFLUENCES.

Mr. Editor:—I have read with much interest the suggestions of your correspondent from Bloomfield, C. W., on *Lunar Influences*. Notwithstanding the entire absurdity of the thing, there are hundreds, aye, thousands, who have more or less confidence in such proverbs or prejudices. And is it strange they do, when in every community we constantly see many led captive by phantasies still more visionary? An instance of a remarkable rebuke of one of these follies was brought to mind by the perusal of your correspondent's communication. At a meeting of the Board of Trustees of one the oldest societies of the commonwealth, one of the members, possessed of more *acres* than *ideas*, was descanting with much eloquence upon the most proper time for *cutting bushes*, that they might not *rise again*, when he said it should be done in the last quarter of the moon, in the month of August, when the sign in the almanac was in the heart, and then done, the bush would never sprout again. This he laid down with great emphasis, and averred that he had repeatedly tested the fact, by his own experience. An elderly gentleman, who was in the chair at this meeting, said, "My friend, while I have the honor to meet you at this Board, I beseech you never again bring in the influences of the moon upon any of your experiments in culture. Let me tell you, she has no more to do with them than *the man in the moon*." Thus rebuked, the whole assembly stood aghast, and the *conceited egotist* shrank back, and never spoke again on the influence of the moon. J. W. P.

February 5, 1855.

FOURTH LEGISLATIVE AGRICULTURAL MEETING.

Reported for the New England Farmer,
BY WILLIAM W. HILL.

The *fourth agricultural meeting* of the season was held at the State House, on Tuesday evening, February 6. The weather was severely cold, and in consequence but a small audience was present. The subject for discussion was *Farm Stock.*

William S. King, Esq., of Roxbury, presided, and opened the meeting with some interesting remarks. The subject of *live stock* he considered one of the most interesting and important connected with agriculture, and one which could not be fully discussed in a single evening. In his remarks he would confine himself to neat stock—milch cows. The principal breeds in New England are the short-horns or Durhams, the Devons, the Jerseys and the Ayrshires. He had owned and bred all these kinds except the Ayrshires, and his experience was that the Durham would give more milk, in proportion to the food consumed, than any other breed. There is a prejudice against them in New England, however. There are two tribes, as distinct as the Durhams and Ayrshires—one built for the shambles and the other for milk. Most Durhams in New England are those built for beef—large, square, and small milkers. North Devons are popular in this section of country, and he would admit that, for *all purposes*, they were the best adapted for New England. The oxen are excellent, combining lightness, strength and docility. He had never fallen in with an Ayrshire cow that equalled her reputation, although he had looked through many herds. They are not equal, as a whole, to the Devons. The Jersey cattle are a breed which is yet to be more extensively known in this country. There is no doubt that they excel in richness of milk all other varieties; but whether they are so good for the farmer to buy, is another question. A cross of this with the best native stock would probably produce a very superior breed. The native stock he believed to have descended from the Devons. It stood high in his regard, and if he were about to purchase a single good cow, he thought he should select a native. The great trouble with native stock is, that it does not perpetuate its good qualities. They are a cross of every thing, so that in the calf they sometimes take the characteristics of their grandfathers or grandmothers. If he were going to start to-day to bring up a breed of cattle, however, he should start with a native cow. In regard to the management of cattle, much remains to be learned by farmers. Cleanliness is a great thing, not only for the appearance of the thing, but for promoting the health of the animals and obtaining a good quantity of milk. They should be fed, too, both in regular quantities and at regular periods. Great care should also be taken to treat them well. A cow, neglected or ill-treated, will not yield so much milk, or give it so readily, as one kindly treated and cared for. In closing, Mr. King alluded to the diseases of cattle, remarking that a great many animals are lost which might have been saved if farmers were only better acquainted with the subject of diseases in cattle. As we go through the country, we find that farmers are very ignorant on this point, and follow blindly the customs of their ancestors. Cattle are often put to death by the medicine given them. He alluded to the "soft tail" and "milk vein" notions, as illustrations of the need of information among farmers. The idea that, by cutting off a "soft tail," the life of the animal may be saved by preventing its extension upwards and along the vertebræ, is wholly false, for the soft spot would not spread half an inch in ten years, and the animal would die of old age before that could kill it. The idea that the large vein along the belly of a cow is the "milk vein," is equally erroneous, it being nothing but a canal from the front to the hinder part of the body, and discharging into the loins.

Mr. Dodge, of Sutton, followed, and stated that by the Patent Office returns, he learned that there were some 20,000,000 horned cattle in the country, which, at $20 a head, would represent a value of $400,000,000. Add to this the horses, mules and swine, and we have a total of from seven to ten hundred millions of dollars. Yet he had not been able to find anything more than a mere allusion in any President's message in regard to agriculture; and never any extended notice of this important subject in the Governor's message in this State, until this year. As an illustration of the want of proper surgery in the treatment of cattle, he stated that he once lost a fine Devon heifer, worth $200, from bronchitis, for which he could get no help. He had no doubt but that the Devons, Durhams, Alderneys and Ayrshires would perpetuate their qualities, and advised a cross with native stock. Mr. Dodge thought the State Board of Agriculture should take in hand the matter of experimenting with different breeds of stock, as it was too expensive for individuals generally, and let the farmers reap the benefit.

Dr. Dadd, Veterinary Surgeon, being called upon, made some very interesting remarks in regard to the diseases of animals, and their treatment. The veterinary science, he said, had been too long neglected in this country, and for one reason, because it has been practiced generally by men who had but little knowledge of anatomy, physiology, and the laws of life, and therefore operated with poor success. They begin an ex-

amination of an animal by hunting for a "soft place" in the tail, and failing in that, go to the other extremity, and examine the horns. If they find the horns hot, they say that the animal has the "horn ail," and commence curious operations in boring the horns. But heat in the horns is only a symptom of disease, not disease itself.—Like the tending of the circulation to the surface in the human system, it indicates a want of equilibrium. Sometimes on boring into a horn, *pus* is exuded, and the operator immediately cries "horn-ail." But this is nonsense. There is a direct connection in the horns of animals with the nostrils, and this matter which escapes is caused by nasal gleets, or running of the nose, and should be drawn off in a natural way. Upon the inner surface of the horn is a membrane, and if it is punctured by boring, a disease in the horns will be likely to ensue. Hollowness is a characteristic of horns in all cattle; there is a perfect channel, extending from the tip of the horns to the nose. There is a disease of the brain which sometimes destroys cattle. He had put his hand into the brains of cattle after death, and found them as soft as sponge. This is owing to derangements of the stomach. There is a great degree of sympathy between the head and the stomach; strike a man a blow on the head, and it will make him feel sick; strike him on the stomach, and it will make him fall down from giddiness. Now this "horn-ail" is indigestion. The speaker related the case of a cow which was driven ninety miles, and on arrival home, was found to be suffering from constipated bowels. Her owner was ignorant of the proper measures to be taken, and applied to his neighbors for advice; they recommended some one thing, and some another. He gave her, three days in succession, a pound of salts, and these failing to produce any effect, 36 drops of Croton oil, (enough to kill any but a sick cow,) then a quarter of a pound of antimony, and finally, a quarter of a pound of gunpowder. The animal died, and he found, on a post-mortem examination, that all this medicine had passed into the paunch, and had consequently produced no effect. If medicine is poured rapidly into a cow, it will run directly into the paunch; but if administered gently, the cow will be enabled to pass it away to the fourth or digestive stomach, where it will operate. Horses, however, are so constructed, that whatever is poured down the throat is sure to pass into the stomach. Cattle are subject to the same diseases as we are, and should be treated in like manner, and with equal skill. We have a disease among cattle in this country, called *pleura pneumonia*, which generally takes the best of the herd. Veterinary science will tell the farmer to inoculate the diseased ones with the breath of the healthy, and a cure will be the result. A horse taken with the cholic, which is produced by the gathering of carbonic acid gas in the stomach, which cannot find vent, cannot be cured by the ordinary remedies; by inserting, with the help of instruments, a tube, a passage is provided for the escape of the gas, and the animal is relieved. When constriction of the neck or the bladder is the difficulty, of which science enables us easily to trace the symptoms, a cure may be effected by a similar course of action —letting off the urine with an inserted tube. Spasmodic cholera is seated on the muscles, but originates in the nerves, and consequently the nervous system must be acted on. Cleanliness and kindness in the treatment of cattle were urged by the speaker as points of much importance.

Mr. Sheldon, of Wilmington, spoke upon breeding of cattle, remarking that he had been acquainted with most breeds, except the Alderney, and he was rather in favor of native stock. It is said that they will not perpetuate their good qualities, but the fault is more in the breeders than in the cattle. He noticed that gentlemen who advocated foreign breeds, recommended, after all, that they should be crossed with the native stock. But if foreign breeds are the best, why mingle them with an inferior stock? Why not keep them pure? He was unwilling to admit that foreign breeds are any more reliable than native stock, if it has been here *twenty-one years*. He spoke highly of Durhams, yet considered them inferior to natives, and expressed the opinion that we shall yet be obliged to fall back upon the latter.

Hon. Seth Sprague, of Duxbury, believed that the comparisons made in favor of native stock were based upon rare specimens which were selected from lots of perhaps a thousand at Brighton, and therefore the comparison was unfair. Again, the object of English breeders was lost sight of. In England, the breeder aims at producing the best animal for a specific purpose—as for beef, milk or work—chiefly, however, for beef. The Durhams, Devons and Ayrshires will make more flesh on the same amount of food than any native stock. If we pursue the course which the English do, we can get just what we want. Now we breed and buy without any definite object. Without concluding his remarks, Mr. Sprague, it being 9 o'clock, moved that the meeting adjourn, and that the subject of *Farm Stock* be continued next Tuesday evening. The motion was seconded by Mr. Flint, and carried.

Examination of a Veterinary Student.—We were present, by invitation, on Wednesday, at the examination of a student of Dr. Geo. H. Dadd. This student is about to establish himself as a physician of domestic animals in Portland, Maine. The young man, Mr. Leonard Burnham, has attended

two regular sessions under the instructions of Dr. Dadd, of this city, and he showed by his answers that he is quite at home in all scientific knowledge pertaining to the department of practice that he has chosen. All the gentlemen present seemed to be gratified, not only with the proficiency of this young man, but that we are, at last, beginning to have educated doctors of animals as well as of the human species. The wonder is that we did not have them long ago.

In a country like our own, that is principally an agricultural one, hundreds of thousands of dollars might be saved to the farmers each year, if, when their horses and other animals are sick, scientific and practical veterinary physiciaus could at once prescribe for them. Now in the whole country there are not probably more than a dozen such physicians, while in the city of London alone there are 360. But the ice is broken, and we shall soon have a supply of good horse doctors.

At the present moment there is quite a call for such doctors in such places as Springfield and Hartford, and to properly quallified young men a field of usefulness and profit is opened. We believe Dr. Dadd to be well qualified to prepare young men for veterinary practice.—*Ploughman.*

For the New England Farmer.

ON THE USE OF GUANO.

Mr. Editor:—I have been looking every week in the columns of the *Farmer*, to see if I could find any thing from that class of your correspondents who, about a year ago, were so anxious to know "how to use guano." Many are those who have made the inquiry, but those who have communicated the *result* of their experiments, are only as individual cases. Now this is not right; all of us who cultivate the soil, are interested to know how we can do it to the *best* advantage—that is, how to obtain the best crop with the least expense. In order to do this, we need more light; and one way of obtaining this light, is by comparing the result of experiments made by others with those made by ourselves under similar circumstances; and if, in the summing up, it appears that such experiments have produced the same results, it is so much light *gained* upon that particular point. The farmer, in all his efforts to improve his land, is to be guided by his own judgment; aided by observation, at home and abroad, and by the experience and wisdom of others, so far as he is able to avail himself of them. This is why I would ask all those who have made use of guano the past season to communicate the result, so that we may be helping each other to obtain that light which we all so much need.

I will now give you the result of my own experiment with guano the past season, upon corn mostly. I bought a small quantity of it, for which I paid $2,00, and mixed, first, equal parts of plaster and ashes, and to this I put one part guano. After my ground was plowed, I sowed this broadcast, and immediately covered it with a cultivator. I applied it to a square piece of land, in all respects like the remainder of the field, except there was no manure put upon it. I applied it at the rate of about 400 lbs. to the acre. My corn came up well, and looked well the *first* of the season; but at harvest time it showed very plainly that it *had had no manure.*

Wishing to try it in another form, I took some of the above mixture and added four parts of loam. I then selected a single row through the manured part of the field, and put about a spoonful of this in each pile, for a *part* of the row, then omitted some, and so through the row. This, also, came up well, looked and grew well, and at harvest time showed plainly that "union is strength." Being determined to have it tried in various ways, I gave some of it to three of my neighbors, telling them to make the *best possible* use of the mite committed to their charge; but not being *posted* in such matters, they put it in direct contact with the roots of vines and plants, so that life was at once destroyed, and no *light* was obtained from these sources.

Now let all others who have used guano give in their testimony immediately, so that the case may be committed to competent judges, and the verdict rendered before the time of planting is full upon us again. I am fully aware that if any one decides *against guano*, he is placing himself on the *unpopular* side of the question; yet I give it as my own candid opinion, that it cannot be made to *pay*, in this part of the country, to buy it at the present price *as a manure.* If farmers, instead of sending *abroad* to buy manure, and thereby encourage speculation to their own hurt, would make an outlay of one-half the expense in making and saving the manures upon their own farms, they would obtain that which would be much more valuable to them than any foreign substances or concentrated manures made by professors for the market. There are but very few individuals who understand how to use guano *properly*, and *as* few who understand how to avail themselves of what is within the reach of every farmer, ready to be converted into manure, and apply the same to their lands in the most proper manner.

It was a remark of one of the best farmers in Worcester county, and one who, some would think, saved *all* his manure, "that he did not make and *save* more than half he ought to in the shape of manure." But my thoughts have led my pen astray, and I must give you a reason why I have *forced* myself upon your notice, as an apology, and then close. As I read over the *Farmer* and *Ploughman* week after week, there seems to come up no voice from this section to aid on the good work of improvement; and, therefore, I have thought *I* would send you a few lines, which are at your disposal. If they shall see the light, and provoke others to *better works*, then my object is accomplished. But if you do not consider them worthy of notice, I will *thank* you for not *exposing* my weakness; and, while I endeavor to improve my land, I will also labor industriously to cultivate my own mind, so that, at some future day, I may be able to stand in the circle of respectable society. Amplificator.

West Brookfield, Jan. 25, 1855.

Remarks.—We hope the expectations of "Amplificator," and those of hundreds of others, will be realized by hearing the result of many of those who have experimented with *guano.* Let the statements be concise and directly to the point,

and we shall be able to give many of them. The subject is important. Why did not the writer give us his name?

HI! G'ALANG!

Come, jump in, old girl,
And away we will whiri,
To contrast your rose cheek with the snow.
O, ne'er mind the sleet—
Tuck that round your feet—
All right! Come, old hoss, way you go,
Over the snow,
Hip! hip! hurra!
What greater delight
On a moon-gilded night,
With Bess at my side,
Than a jolly sleigh-ride—
Say?

I care not for Care,
I can distance Despair,
With a nag that's 2.40 and sound;
'Mid laughing and kissing,
Upset nearly missing,
Away we bound over the ground.
Through the bright snow,
Hip! hip! hurra!
What greater delight
On a moon-gilded night,
With Bess at my side,
Than a jolly sleigh-ride—
Say?

For the New England Farmer.

CULTIVATION OF THE POTATO.

Messrs. Editors:—I would like to obtain, through your paper, some information on the cultivation of the potato, from persons extensively engaged in raising them for the Boston and New York markets. I am informed that this is the principal business of many farmers in the southern part of this State, and that some of them plant fields of ten, twenty, and even forty acres in a season. Those who are thus extensively engaged in the business, it is to be presumed, have, from their long and extensive practice, and from superior attention to the most approved modes of raising and harvesting their crops, acquired possession of many little items of information and experience, which others, who have bestowed less attention to the subject, are ignorant of. I say *little items*, for these ordinarily constitute all the real difference that exists in one man's performance of a piece of work over that of another; and it is usually the case that in strict attention to matters, which in the abstract are considered trivial, that the most astonishing results ensue. So far as my knowledge of potato culture extends there is entire want of uniformity in every farming community; and not only so, but there is more diversity of opinion and of practice, in the production of this root, than in the production of any other kind of crop.

In preparing the ground, some prefer turf ground of heavy quality, to be plowed or thrown into ridges of two furrows to the ridge, late in the spring or early in summer, and deposite their seed between the folding clods, whilst others would certainly have plowed such ground during the preceding autumn, and, previous to planting, would have cross plowed, harrowed and thoroughly pulverised the soil. One preserves his seed for planting by keeping it fresh in the earth till it is wanted for use, whilst another smokes and dries it to a crisp. One plants large tubers, another small ones; and others again prefer halves, quarters, or single eyes. With one, science has demonstrated that every tuber has a head and face, and that it should be deposited in the ground with great care and in a certain position; with another, science is a humbug, and all such care is nonsense. That mysterious planet, the moon, looks down with a smiling face and proffers her bountiful gifts upon her faithful votaries; whilst others plant just when they get ready, regardless of her frown or favor. And how many kinds of potatoes there are that lay claim to superior qualities it would puzzle a Wall Street broker to determine. One keeps up the old practice of planting in hills, full four feet apart, and regards any innovation upon this ancestral usage with something like the same abhorrence that he would the demolition of a noble school-house and the erection of a new one, after looking downward and consulting the affairs of the pocket.

Another, General Barnum, for instance, of Vermont, would prefer planting in drills only 12 inches apart, with a space of only one foot between the potatoes in the drill. One makes use of the hoe in planting, another the plow, whilst a third pays his respects to the practice of the aborigines, that of depositing the seed in a hole made by a pointed stick. And as to manuring, why, a little more than a year since I paid a lecturer on agriculture a dollar and a half for telling me how to raise crops without manure; and subsequently I paid another lecturer two dollars for explaining the mysteries of cornstocking and the benefits of high cultivation. Cheap enough! And there is no kind of manure or mode of application that has not its advocates. As to after culture, some believe in hoeing once, some twice and some three times, whilst others do not hoe at all. Some make high hills, some low, some sharp. Some do all their hilling at first hoeing, others reserve it for the last. And in harvesting there are few crops that accommodate such a diversity of implements, so differently applied for accomplishing the same result.

Now all these different modes of selecting and preserving the seed, of manuring and cultivating the soil and the crop, and of harvesting and preserving the roots, indicate an unsettled state of opinion in regard to the production and general management of the potato, which is probably without a parallel in the production and disposal of any other crop. And why all this diversity? Is it because the potato is perfectly adapted to all kinds of treatment, and that all kinds of cultivation will eventually be rewarded alike? Or is this lack of uniformity owing to a want of thought, of study and of general knowledge, in regard to the utility and feasibility of one mode of operation over another? Most probably the latter. With the mass of farmers in this country, system, in the production of the potato, is by no means the order of the day.

If the time shall ever come when the practice of farmers shall be more consistent with general rules, it will be brought about, chiefly, through

the agency of reading, thinking, practical, matter of fact men. It is the practice and experience of *such* men that I solicit through your paper. And in the mean time I may offer some remarks of a practical nature for publication on this subject.

Bristol, Ct., Jan., 1855. C. BLAKELY.

REMARKS.—Thank you, sir. You are undoubtedly able to teach most of us in potato culture. At a recent meeting of the "Concord Farmers' Club" the subject of potato culture was pretty fully discussed, and we believe all the practices to which you have alluded were acknowledged to be in use among the speakers. No persons, however, produce finer crops than these gentlemen, and scarcely any two cultivate alike. They all agreed, however, in one thing, viz: that small potatoes (not the *smallest*) or large ones cut are better for seed than large whole ones. Please write us often.

For the New England Farmer.

A GOOD COW.

FRIEND BROWN: — Much has been said about Mackey, Berkshire and Suffolk hogs, and about Durham, Devon, Ayrshire, Hereford and Alderney cows. All of these have had their day, and all have more or less good qualities. I admire a good hog or a good cow, let their *breed* be what it may.

But have not the foreign breeds had the parlor long enough, while the natives haee been shoved into the back-room? For thirty-six years I have been trying to produce the best heifer in the world for dairy use, both by raising and selecting from other herds the *best* I could find, without regard to name or breed, always raising my own bull from my best cow. The best heifer I ever owned I sold to D. D. HART, Esq., Ticket-master at Boston and Lowell Railroad Depot, Boston.

I now have a heifer, two years old last spring. She dropped her calf on the 23d of December last, making the calf eight days old at the end of the year.

On the morning of the new year, we commenced milking her, and weighing the milk, and making butter, which proved as follows:

QUANTITY OF MILK.

FIRST WEEK.	Lb.	oz.	SECOND WEEK.	Lb.	oz.	THIRD WEEK.	Lb.	oz.
January 1,	26	8	January 8,	27	12	January 15,	25	4
January 2,	26		January 9,	27		January 16,	25	12
January 3,	27	4	January 10,	27	8	January 17,	26	
January 4,	23	0	January 11,	26	8	January 18,	26	12
January 5,	27	8	January 12,	26	4	January 19,	29	
January 6,	27	4	January 13,	26	4	January 20,	25	12
January 7,	24	13	January 14,	24	12	January 21,	24	
Total,	182	00	Total,	186	00	Total,	182	8
							550	8

QUANTITY OF BUTTER.

First week	8½ lbs.
Second week	9½ lbs.
Third week	9¾ lbs.
Total	27½

The quantity of butter produced by her, the first three weeks of January, I consider equal to 14 lbs. per week in June, provided she had calved n May. Her recommendation is this; if any man will bring to my stable, this winter, a heifer of the same age, that dropped her calf about the same time, of any breed, born in any part of the world, and let them be fed and milked just alike by one disinterested person, to be agreed upon by the parties, the owner of the heifer that produces the most butter in one month shall take both heifers. Her breed I call "*Improved Long-lived Native American*," springing from a race living and doing well to the age of twenty-five years. The present owner of the mother of this heifer, (a gentleman whose word I have not the least reason to doubt, from all the transactions I have ever had with him,) the last time I saw him, stated to me that the mother of the heifer gave him 18 lbs. of butter per week, each and every week, in the month of June, last season. If any gentleman should see fit to call and examine this heifer, I would caution him not to be surprised if she produces more pounds of milk, in the month of January, than *she* weighs herself.

ASA G. SHELDON.

Wilmington, Jan. 24, 1855.

AGRICULTURAL SOCIETIES.

HAMPSHIRE COUNTY.

President—William P. Dickinson, Hadley.

Vice Presidents—Horace Henderson, Sunderland; Cotton Smith, Amherst; George Chandler, Belchertown; Alden C. Field, Leverett; Ezra Ingraham Amherst; Rodney Ayres, Granby.

Secretary and Treasurer—James W. Boyden, Amherst.

HAMPSHIRE, HAMPDEN AND FRANKLIN.

At the meeting of this Society, held in Northampton, Jan. 3d, the following officers were elected for the coming year:—

Paoli Lathrop, of South Hadley, President; for Vice Presidents, Ahira Lyman, Westhampton; Chas. Fowler, Westfield; George Dickinson, Hadley; Wm. N. Clapp, Easthampton. For Treasurer, Benj. Barret, Northampton; for Secretary, John W. Wilson, Westhampton; Auditor, L. I. Washburn, Northampton; for member of the State Board of Agriculture, George W. Hubbard, of Hatfield.

HAMPDEN COUNTY.

For President—Francis Brewer, of Springfield. A. A. Allen, Secretary and Treasurer.

For the New England Farmer.

WEIGHT OF BONES IN ANIMALS.

MR. EDITOR:—I wish to inquire if you, or any of your correspondents versed in animal physiology, can give the general average proportion which the bones of different animals bear to the whole weight of the animal. I have hitherto sought in vain for the fact in various works on Physiology; and if the subject comes within the domain of inquiries of interset to the agricultural community, I should be glad to learn the general fact; for it is not to be presumed that the question is one that can be answered very definitely, because the relative proportion must vary very much at different times, even in the same animal. Yours, &c.,

Worcester, Feb. 5, 1855. PHINEAS BALL.

SHORT-HORN DURHAM BULL.

Bred by Mr. STEPHENSON, *of Wolviston, Durham, England. His color is red.*

A SHORT LECTURE ON EXTRAVAGANCE.

"A little house well filled."

New England people pride themselves on their sober good sense, especially as applied to the art of living. They flatter themselves that they know how to make the most, and the best, of their condition, and means. And the southern or western man sometimes sneers at our *cute calculations* for saving our money. Yet we are bold enough to say, that in many particulars, New England men, aye, New England *farmers*, are the most extravagant people in the world. We intend to speak to that class of our farmers, who are owners of the farms they till, and who are ambitious to live in as good style as other people; not to the poor and destitute, but to the substantial, solid citizen farmer. "The farmer extravagant?" we seem to hear echoed and re-echoed, on every side. "Do we not work early and late? Do not our wives give their whole time to labor,—do we not constantly study economy, and talk economy, and save every cent that can possibly be saved?" Perhaps you do all this, our friend and brother.—Almost every man works too hard, in New England, and has too little leisure, and a great many men are continually preaching economy, and making their families uncomfortable, by complaining that their expenses are too great, and that they cannot afford to eat, and drink, and wear, what is proper and decent, when the fault is entirely their own. Let us name some of the particulars in which not only farmers, but most others, who have homes of their own, live extravagantly; that is to say, live beyond their means—live in a style that rather detracts from, than promotes, the comfort of the family.

Our houses are too large, and too costly. We have, usually, one or two rooms that are merely for show; a parlor, perhaps two, with folding doors between, that are only open for company, that are too nice for children to play in, too large to be warmed readily in winter, in short, like a dandy, too nice for anything useful. And then, often, there is a part of the house unfinished, a large attic, which might accommodate a small family, occupied now by a few old boxes of white beans, and a few bunches of catnip and pennyroyal, and some broken chairs and a cradle. This upper story was probably put on because you wanted a house as large as your neighbor's. Now a house should, in some measure, fit a family, as a suit of clothes should fit an individual. Although it is not, perhaps, always safe to count your children before they are born, and therefore the capacity of your house must often be by estimation, yet everywhere are houses going up, with the perfect understanding that a considerable part of the room is to be useless, either kept for an annual party, or to remain unfinished. If we, who plan and build such houses, would reflect upon it fairly, we should see that no rational man would entertain for us any more respect, for living in a house, which we do not fill, than for wearing a suit of clothes made for a person of twice our size. Let us have "a little house well filled," with no spare room except a chamber for our friends, and no lumber room of a garret, for ghosts and rats and mice to inhabit. The thousand dollars which even careful men generally expend, in building "a house to live in," merely to conform to fashion, or an architectural whim, costs the poor wife and children many a lecture upon penny economy which might otherwise have been spared.

And when you have built or purchased a house too large for your wants, the evil is but just commenced. Your large and numerous rooms require large and numerous carpets, and curtains, and sofas, and other adornings. But this is not all, nor the worst of it. The house and the furniture must be taken care of—swept and dusted daily, and scrubbed and scoured Spring and Fall, when *house-cleaning* time comes round. You must either pay for *help* to do all this, or what is perhaps more common, allow additional burdens to fall on your wife, who has already a ceaseless round of cares. A sensitive, or even a just man, should see that, in this land, where servants are an expensive luxury, at best, his wife have comfort and leisure, and a selfish man may soon learn that he cannot lead a peaceful and happy life with a woman who is over-run with hard work and family cares. We think, if our reader himself is not open to censure in the particulars named, he may find plenty of his neighbors to whom our remarks will apply.

And then, again, we are extravagant in our household *furniture*. The ladies must come in for a share of our lecture on this topic. The furniture of a house is mainly for use and comfort. Carpets and sofas and chairs and tables are chiefly designed to promote warmth and quiet and physical enjoyment in some way. A carpeted floor is warmer in winter, and the children make less disturbance on it than bare boards; and besides, they require much less labor to keep them in nice order. Let comfort then be regarded, principally, in selecting furniture. We live in the country, and it is not only unnecessary, but absolutely in bad taste, to furnish our houses like fashionable saloons in the city. It indicates no refined taste, only that we have, or have *had*, money, if our rooms are filled with tapestry and marble and black walnut. Mr. Rosewood, the furniture man, will fit out your house in magni-

ficent style, if you will only furnish the cash.—He knows the fashions better than you, and is entitled to all the credit of the show, after all.

But a nice perception of the fitness of things, which is good taste—the faculty of producing *harmony* between the occupants of the house and the house itself, and between the house and its furniture and surroundings, this is what you do not buy at the upholsterers, this is beyond price, and a matter, madam, in which it is *your* province to excel. Let the furniture say, as plainly as things can speak, this house is for the comfort of those who live *inside* of it, and not for mere callers and strangers. This carpet is not too good for the children to roll on, this arm-chair will not be soiled by being occupied, and the bright sunlight may visit the inmates, in the morning, bringing health and cheerfulness, without fear that it will fade the brilliant colors of the silk and velvet. If when your house is built, and thus furnished, you have money to spare for articles of mere taste and luxury, the world is full of books and pictures, and a thousand other things, which will afford to a refined and cultivated mind far more rational enjoyment than a whole warehouse of gilded mahogany.

On the whole, we think the ambition which is so common among all classes, to live in large houses, elegantly furnished, is leading us daily into embarrassments and discomforts, which as a thoughtful and rational people, we ought no longer to suffer.

AMERICAN POMOLOGICAL SOCIETY.

Through the polite attention of the President of the Society, the Hon. Marshall P. Wilder, we have before us a copy of the proceedings of the third session held in the city of Boston on the 13th, 14th, and 15th of September, 1854. We copy below, from the President's Address at the opening of the Session, that part of it which relates to *the production from seed of new varieties of fruits adapted to particular localites, or to general cultivation*. Other extracts will be given under the head *Horticulture*, in our next number, together with notices of Reports from different States on the subject of growing and preserving fruits.

"The immense loss to American cultivators, from the importation of foreign varieties, in many instances not well adapted to the countries from which they come, and often still less adapted to our soil and climate, suggests the importance of raising from seed, native sorts which, in most instances, possess peculiar advantages. It is now generally conceded that the trees and plants of a given country, like its aboriginal inhabitants, will flourish better at home than in most foreign localities.

We rejoice that public attention has been turned to this subject by some of our horticultural journalists, and that many cultivators and amateurs are engaged in this interesting and promising department. The success which has crowned their exertions affords great encouragement to perseverance. Witness, for instance, thirty or more varieties of the cherry, by Dr. Kirkland, of Ohio, which appear adapted to our eastern climate, and some of them of superior excellence. Witness the numerous varieties of the raspberry, by Dr. Brinckle, Ex-President of this society, of which, some have endured, without covering, the severities of the last winter in the New England States, and which also promise to be valuable contributions to American pomology. In addition to these, how many new varieties of the apple, the pear, the plum, and the grape have recently been added to the list of American fruits. How many new and excellent varieties of the strawberry have appeared since the introduction of Mr. Hovey's Seedlings.

These are sure indications of the success which will reward future efforts to obtain valuable and native varieties of fruit; and they point to the fulfilment of the prediction of the celebrated Van Mons, "that the time will come when our best fruits will be derived from seedlings." He gives the following sage counsel to his correspondents, to whom he had sent trees: "*Sow your seed and persevere without interruption, and you will obtain even better fruit than mine.*"

Among pioneers in this department, I am happy to notice a gentleman, (now residing among us) the pupil and friend of Van Mons, one who has adopted our country as his future home, and who has already transplanted to our soil many thousands choice seedlings of the pear which have come into his possession from the collections of that gentleman and the celebrated Esperen.

As to the best method of producing fine varieties from seed, the opinions of distinguished pomologists are not uniform.

Duhamel, among the French, from causes which seem to us irreconcilable with nature and experience, entertained serious doubts of the practicability of any method for obtaining new and valuable varieties from seed, especially of the pear, because he had tried various experiments without success, for fifty years.

Dr. Van Mons, of Belgium, instead of saving the seed of the *finest* varieties, selected those of inferior sorts, upon the principle that a kind having arrived at the highest state of perfection, must deteriorate, while an inferior one would improve by successive reproductions. He also held that hybridization tended to degeneracy and imperfection. Thus he assumes the doctrine that a perfect variety necessarily deteriorates, and also overlooks the fact observed by other distinguished men, that the improvement or deterioration of which he speaks, may result from natural impregnation by the pollen of other varieties conveyed by the air or insects, and therefore that the seed of a good variety may produce either a better or a worse, and that of a bad either a worse or a better.

Mr. Knight's system of obtaining new and improved varieties, depended entirely on hybridization or artificial impregnation so lightly esteemed by D. Van Mons. This is somewhat difficult to practice on account of natural fertilization by insects and the wind; but it has the merit of de-

pending on a truly philosophical principle, and with very particular attention may yet prove as available for the improvement of our fruits as it has for the production of fine varieties in the vegetable and floral kingdom, or as the corresponding principle has in the crossing of the breeds of domestic animals.

The results of Mr. Knight's experience disprove the tendency to degeneracy, inasmuch as many of his fruits, obtained by hybridization, are among the most durable and hardy varieties, as the Eyewood and Dunmore Pears; the Black Eagle and other Cherries.

Many cultivators, as Esperen, Bivort, Berckmans, and others, both in this and foreign countries, have sown seeds in variety, and have obtained some valuable sorts. But I am confirmed in the opinion, that the best means of producing new and excellent varieties, suited either to general cultivation or to particular localities, is to *plant the most mature and perfect seed of the most hardy, vigorous and valuable sorts;* on the general pathological principle that like produces like, and upon the conviction that immature seed, although the embryo may be sufficiently formed to vegetate, yet not having all its elements in perfection, it will not produce a vigorous and healthy offspring. Dr. Lindley, commenting upon this practice, justly remarks—"All experience shows that in every kind of created thing, be it man or beast, or bird, the mysterious principle, called life, remains during the whole period of existence what it was at first. If vitality is feeble in the beginning, so it remains. Weak parents produce weak children, and their children's children are weaker still, as imperial dynasties have sadly shown." With him we believe this theory as applicable to the vegetable as to the animal kingdom. May not a disregard of this doctrine account for the great number of feeble, sickly, early defoliated trees often found in our grounds by the side of those that are vigorous, healthful, and persistent in foliage? Is not the theory we advocate as important in the production of fruit trees, as in the raising of cereal grains? The skilful agriculturist saves the best seed of his various crops, and selects the best animals from his flocks and herds for breeders. Why should not this law of reproduction regulate the practice of the pomologist as well as of the farmer? Has the All-wise and Infinite enacted several laws where one would subserve the purpose?

To the doctrine of Van Mons, and other distinguished writers, respecting deterioration by age, and after a variety has reached its perfection, there seem to be some exceptions. From the accounts of oriental travellers, may we not believe that the grapes of Eschol are as perfect now as when the chiefs of Israel plucked their rich clusters three thousand years ago?—and that the same variety of the fig, the olive, and the pomegranate are as perfect in Syria to-day as in the period of David and Solomon? It is worthy of inquiry whether the native grapes, on the banks of our rivers, have deteriorated since the day when the red men of the forest refreshed themselves with fruit from those vines, and whether the orange, the lemon, the bananna, and the fruits of southern latitudes, evince any more signs of decay than they did centuries ago? In a word, whether this doctrine of deterioration is as applicable to the *native* as to the foreign fruit of a country?

Why may we not expect to obtain natural varieties of the apple and other fruit as durable and far more valuable than those which have passed their second centennial, as the Endicott and Stuyvesant Pears? From meteorological or other causes, which we do not at present understand, particular varieties may deteriorate in a given locality, for a season, and afterwards revive; or, they may show signs of decay in one locality and flourish well in others not very remote, as the White Doyenne, which has been considered, for many years, by some in this vicinity, on the decline, while it is perfect in several places in Maine, New Hampshire, Vermont, and other States. Fruit-bearing may exhaust the vital energy of the tree, and hasten decay, but still the variety may remain. We have, among fruit trees, no example of longevity equal to that of the new Taxodium, found in California, supposed to be three thousand years old. Our object is not to controvert the opinions of those who believe in the running out of varieties, whether their duration be limited to one hundred or one thousand years, but to enforce the importance of raising new varieties from seed, especially adapted to our own location.

NEW HAMPSHIRE AGRICULTURAL SOCIETY.

We have received the volume of the *Transactions of the New Hampshire Agricultural Society, for* 1855. This volume is well got up, and filled, from beginning to end, with interesting facts and suggestions. The various reports, essays and communications which it contains, partake in a very marked degree the character of the people of the Granite State; they are eminently practical. The volume contains copious extracts from the speeches made on the occasion of the annual meeting. These speeches were not dull, prosy affairs—speeches made against time—but they exhibit a life and fervor that must have stirred the souls of those who were fortunate enough to hear them. The affairs of the society are evidently in the hands of earnest, working men—men who have undertaken the not easy task of making their mark on the hard soil of New Hampshire. When such men rest from their labors, "their works do follow them."

The Granite Farmer.—This paper—the only agricultural paper, we believe, in New Hampshire—is a large and handsome sheet, and published weekly at Manchester, at $1,50 per annum. It takes earnestly hold of the great work to be done; has active and intelligent Editors, and practical, judicious correspondents. It would not only be a matter of profit, but it seems to us to be *the duty* of every farmer in New Hampshire to do something to sustain it by subscription and

contributions to its columns; and when they have done this, they will be all the better able to take another paper out of their own State. Our New Hampshire friends are holding some of the most useful meetings that are taking place in New England, and we only regret that our space will not permit us to spread their reports before the reader. Hillsboro' county gives examples worthy of imitation by all.

For the New England Farmer.

THE BRAIN FEVER.

Of all fevers to doctors known,
The worst infects the brain;
And he who has this dread disease,
Is seldom well again.

Although the patient long may live,
Nor be confined to bed;
Yet ever and anon you'll say,
"There's fever in his head."

Sometimes he'll rave for shiny gold,
From Sacramento's breast;
And oft he'll start for Oregon,
To get him farther West.

In Yankee land, where summer 's hot,
And winter cold and drear,
This fever *runs* in madness on,
Through each successive year.

Some spend their silver and their gold
To buy Shanghai hens,
While others choose the Bolton Grey
To fill their fancy pens.

But the worst form this fever takes,
Among the farmer band,
Is purchasing special manure
To fertilize his land.

For he can buy *Guano* cheap,
If purchased in the fall;
And as for farm-yard, wet manure,
It will not pay to haul.

No compost heaps are round his barn,
No muck spread in his yard;
No wonder then that oft he thinks
The farmer's lot is hard.

I laid me down and took a nap,
Nor woke for ten long years;
The farmer sat with drooping heart,
His wife was bathed in tears;

A poor old cow, with stinted calf,
Was watching round the barn;
A pig was squealing in the pen
To get *one* ear of corn.

His house did sadly need repair—
The panes were stuffed with rags;
His barn-yard shed was covered o'er
With old *Guano bags!*

The farmer's fever now has turned,—
A ruined man is he;
For if he should survive, he'll show
Signs of insanity.

SAT-SAT-SAK-SIS.

Westford, Ct., Jan., 1855.

VERMONT STATE AGRICULTURAL SOCIETY.—At the annual meeting held at Middlebury, on the 11th inst., the following gentlemen were elected officers:—*President*—Fred'k Holbrook, of Brattleboro'. *Vice Presidents*—Edwin Hammond, Henry S. Morse, Henry Keyes, Solomon W. Jewett. *Corresponding Secretary*—J. A. Beckwith, of Middlebury. *Recording Secretary*—Charles Cummings, of Middlebury. *Treasurer*—Edward Seymour, of Vergennes.

For the New England Farmer.

PRODUCTION OF MILK.

EXTRACTS FROM AN ESSAY READ BEFORE THE CONCORD FARMERS' CLUB.

BY MINOT PRATT.

* * * In the little investigation I have been able to give this subject, nothing has been more strongly impressed on my mind, than that the wisdom of the fathers, and of the brothers too, as exemplified in theories of agriculture, needs to be very carefully sifted by every one, before he makes it a rule for his own government. And even theories which, in their origin, have a strong foundation in truth, and as applied to the circumstances that gave them birth, are really and indisputably sensible and valuable, must to a great extent be modified to adapt them to the peculiarities of our own circumstances. For instance, in the matter of milk: Mr. A. may turn his attention to the making of milk for the Boston market. He selects a stock of cows that will give the largest quantity; he gives such feed as will cause the milk to flow like *water*, I almost said—at any rate, it flows abundantly, and of such quality as ought to satisfy any city customer, even the most enthusiastic admirer of *thin* milk, without any addition of the fragrant waters of the Cochituate. This man succeeds in his object. His stock, his mode of feed, do what he wants them to do, and he can strongly recommend them to his friends. Now Mr. B. comes into the neighborhood, intending to turn his attention to the making of *butter*. He has read of Mr. Somebody who obtains a pound of butter from 4 quarts of milk. He thinks to himself, "What man has done, man may do." He becomes acquainted with the great flow of milk from Mr. A.'s stock, and proceeds at once to get some of the same breed, and feeds in the same way. The milk comes, is daily put away in pans of the newest style, in a milk room built after the most approved pattern. But the cream is thin; and as to the butter, dividing the number of quarts of milk by 4 does not give the number of pounds correctly. This man does not succeed. His stock, his system of feeding, are not adapted to accomplish his intentions, and they are not profitable to him. * * *

But the question of chief importance to us is, by what means available to common farmers, can the quantity of milk be increased, or its quality improved, so as to make its production more profitable. I shall not meddle with the question, which is the best breed of cows? Where the doctors disagree so widely, I may be excused from offering an opinion. But I have no hesitation in saying, get the best cows you can, of whatever breed, even if you are obliged to pay a good round price for them. A cow that will give an average of seven or eight quarts a day for the whole year, on feed that costs $60, is better worth $75, than one that gives but 4 quarts a day for the year is worth $25, though it may not cost more than $40 to keep the latter. It must be evident,

however, that the market cannot be supplied from cows of the first class only; and it behooves us to inquire what sort of feed given to such cows as we can get, will most economically produce milk. From the best guesses I can make, I believe a cow will eat about two tons of English hay during the winter. At present prices, this is worth nearly $40. The expense might be considerably reduced by feeding for a portion of the time with fodder of less market value, in the case of cows going dry. It might not be profitable, on the whole, to reduce the quality of their feed very much; and if we allow them one ton of English and one ton of meadow hay, and thus bring the winter feed to a cost of about $30, perhaps we make it as low as a wise economy will permit. Then add the summer feed, and the annual cost of keeping a cow on hay and grass will not come much short of $40. Possibly it might slightly exceed that sum. An average of 4 quarts of milk a day for the whole year, or 1460 quarts, at 3 cents a quart, will pay $43,80. This would allow but $3,80, for interest on the value of the cow, and for depreciation,—and the manure is supposed to pay for the care of the animal. So, to make the business profitable, we must either receive a higher price for the milk, or charge ourselves with a lower price for the hay. For a winter cow, I presume the increased price of milk will pay the necessary increase of cost for feed, so as to bring the profit or loss to about the same figure. If you can get cows that will give more milk, then of course you may make a more decided profit; but I believe more cows come *under* this estimate than over it.

In the economical manufacture of milk, it is a matter of great importance to have a warm barn. My own is not of this character; and I consider my milk-pail a pretty good thermometer. A sudden change to severe cold weather, very perceptibly diminishes the yield of milk; and a change back to mild, increases it again.

I have no doubt that a liberal supply of the roots, carrots, parsnips, the different varieties of beets and turnips, would be a means of economy in feeding cows. With these, not only will less hay be eaten, but cows will have an appetite for hay of a poorer quality than they would otherwise willingly accept. Though some of these roots are undoubtedly more nutritious than others, I believe it better to have a variety, and not confine the animal to any one kind. It was wisely said of old, "Man shall not live by bread alone;" and the spirit of the remark may be as applicable to the physical well-being of cattle, as to the spiritual well-being of man. For the production of milk, I have not much faith in carrots; but there seems to be strong testimony in favor of parsnips, beets and turnips. A hundred bushels for each cow would save much hay, besides adding largely to the quantity of milk We often hear that turnips will make themselves remembered in the milk; but I have fed them freely this winter—a half bushel a day—and have not perceived any turnip flavor either in the milk or butter. Years ago, I was told that if turnips were fed to the cow immediately after milking, the flavor would pass away before the next milking. But I have given them at different hours, and the same absence of flavor has resulted. When quantity of milk is desired, I am disposed to believe that turnips and beets of the different varieties are preferable; to improve the quality, I would give carrots and parsnips. But in this, I do *not* desire to be understood as speaking with any great degree of authority, as one who knows. It seems to me highly desirable that a series of thorough and carefully conducted experiments should be tried by some competent person, who would not be hampered by any previous theories of his own or of others, to ascertain as accurately as possible,

1st. How much good English hay will it take to keep a cow, giving milk for the six winter months?

2. Is it more expensive to feed partly on grain, cob-meal, shorts or oil meal? If so, is the increase of milk sufficient to pay the increased expense?

3d. Can either, or a variety of the root crops—carrots, parsnips, beets, turnips, be raised and profitably used for a feed to milch cows?

4th. Which of these roots, in proportion to its cost of production, will produce most milk?

5th. Which will produce the richest milk?

6th. The comparative economy of different feeds.

In regard to the *summer* feed of cows, it seems to be highly desirable for those whose pastures are not to be relied on for the whole season, that preparation should be made by some cultivated crop to furnish an ample supply of green food during the season, which is so likely to cut short the feed on our upland pastures. For this purpose, on account of its great productiveness and ease of culture, I know of nothing superior to the Southern flat corn. Perhaps oats, barley, clover, of equal weight, would give more milk; but so much larger crops of the corn can be obtained, that it seems to be entitled to a decided preference. But I would for summer as well as for winter, have as great a variety as possible; for cows as well as men, dislike to be confined for a long time to one article of diet, however palatable it may be at first. In sowing corn for this purpose, judging from my own limited and imperfect experience, I am inclined to believe that too much seed is often used. Where the plants are very much crowded, the stems lack that rich sweetness which we find in them when they have more room, and a freer exposure to the sun and air; and my own cows more readily eat the sweet coarse stems that have had room enough, than the smaller but insipid stems of the more crowded, shaded plants.

Concord, Feb., 1855.

For the New England Farmer.

HOW TO MAKE GOOD BUTTER IN FALL AND WINTER.

Scald the milk when strained, and keep it from freezing as little as possible until the cream is taken off. When churned, warm the cream as warm as new milk, and grate one middling-sized orange carrot, for one gallon of cream, into one pint of new milk, and strain into the churn with the cream through a cloth; when churned, the butter will be nearly as good as when made in warm weather. O. S.

Woodstock, Vt., Jan., 1855.

For the New England Farmer.

LUNAR INFLUENCE—No. 1.

FRIEND BROWN:—I have for a long time been desirous to see the influence of the moon upon terrestrial objects, written out and explained for the benefit of those who are ignorant of it. Failing, however, to see an article upon that subject, and thinking instruction in a branch of knowledge so intimately connected with vegetation, and with many of the manipulations of husbandry, as this is *said* to be, should be circulated as widely as possible amongst farmers, I have undertaken to point out some of the *more noted* effects of our satellite, based upon the "observation" of certain *very observing* individuals.

I will first notice its effects upon vegetation, and upon some kinds of farm labor. In spring it is asserted that sap flows most freely at the time of full moon, and sugar-makers are duly notified to prepare for a *good run of sap* "*on the full.*" Peas must be sowed "on the full moon," though some people think it best to sow them on *the earth*. Onion and most other kinds of garden seeds must be sown on the *increase* of the moon, to insure a plentiful crop, and all kinds of roots and herbs must be gathered before the *full*, if you would preserve their medical properties, and keep them from shrinking by drying. Apples must be picked on the *decrease* of the moon, otherwise bruised places will rot. Some say wood and timber must be cut at the time of full moon in midsummer to render it durable; others say that fuel cut in mid-winter is best, at any rate the *moon* must be consulted. A neighbor informs me that he once knew a man who had a particular time in the moon in which to *build rail fence!*

It is said a potential influence is also exerted upon the condition of animals intended for meat. If you would have your pork "spend well," kill your hogs upon the *increase of the moon*, otherwise it will shrink in cooking, and the fat will all *try out*. Admitting this, would it not be well for the Legislature of each State to enact a law requiring all people who raise pork for market, to kill their hogs during the *first and second quarters of the moon?*

Again, if you have bushes or thistles to cut, it must be done at the time of full moon, and you are *certain to destroy them.*

All these, and many more *whims* of a similar nature, are unworthy of belief in this enlightened age, yet there are those who pertinaciously adhere to the tradition of their ancestors,—who believe in *signs*, *wonders* and *witches*, only because they have no inclination to learn a few of the simplest laws of Nature.

Now, ye observing sages, answer, if ye can, a few plain questions. In what *manner* is this lunar influence exerted on plants? If they are more easily killed by cutting at the time of full moon,—which I doubt,—why is it? *Does* the full moon cause the sap to flow more abundantly in spring than it does at the change or quarter? If so give us the reason. We all know it sometimes fails, hence *moonshine* is not a *certain cause.* Which has the greater influence on *meat*, the *moon* or the *food* upon which the animal is fattened?

In my next I shall notice the lunar influence upon the weather, referring to the popular belief, enumerating some signs, and producing statistics to *disprove* their validity. L. VARNEY.

Bloomfield, C. W., 1855.

EXTRACTS AND REPLIES.

The following letter is from a little boy only *ten* years of age, in Waukesha, Wisconsin, and we give it just as he wrote it, with the exception of adding the heading, and a single letter in one of the words. This boy, and the sister he speaks of, are under the right training, to become useful and distinguished persons. We wish there were more like them.

AMERICAN CRAB APPLE TREE.

MR. EDITOR:—Some time since I saw in the *N. E. Farmer* an engraving of the American crab apple, with a description. We have a great many in our woods; my father says they do not grow in New England.

It is a small but handsome shaped tree, and would look pretty in a door-yard. The flowers are beautiful, large, pink, and so sweet they perfume the air. The fruit is larger than the Siberian crab. It does not get ripe till mid-winter, then it is a greenish yellow. They can be grafted on a common apple seedling.

If any one would like one of these pretty trees, I will send them some grafts, if they will write me a plain direction; and if they enclose a stamp I can prepay the postage for them. The scions ought to be sent soon.

My sister, who is younger than I, wants to write you how to make nice sauce of the apples, as she has helped me prepare them. But she had better wait till you get the apples.

My sister and I have a nursery and garden, and we are trying to raise new kinds of fruits. I learned to bud last summer, and will learn to graft this spring. I like to read anything in the *Farmer* I can understand.

Waukesha, Wis. HENRY W. HANFORD.

HOW TO RAISE CARROTS.

I wish to inquire about raising carrots. I have a lot of sandy loam, which I intend to have planted to carrots, turnips, &c., the coming season. I purpose to put on the lot, (about an acre,) 100 bushels leached ashes, 4 cords rich manure, if I can get it; but if not, I think of trying guano with the ashes. I would like to get your views respecting it,—how much guano should I put on, and how shall I apply it to the soil? I wish you would give directions as to the management of said crop throughout, as fully as you can.

Scituate, Jan., 1855. JEREMIAH POTTER.

REMARKS.—Drain thoroughly, if water ever stands upon the land, even if it is a "sandy loam." Manure the surface before plowing as liberally as you can with such barn manure as you have, and plow it under eight or ten inches; then add fine composted manure, or not having that, 300 lbs. of guano per acre, pulverized and sown broadcast, and cultivate, harrow and rake until the surface is fine and pretty smooth. Sow with a seed sower, having a boy hitched on forward to assist, as

you will sow an acre in about half the time with the aid of the boy, and get the seed in at a more uniform depth. Make the row 16, 18 or 20 inches apart—in our own practice we think 16 inches about right. As soon as the plants appear—or even before, if any weeds are seen—pass between the rows with the *wheel hoe*, and when they are an inch or two high, thin them in the row so that they will stand three or four inches apart.

The plants now being up and thinned, your success will depend first upon the condition in which you placed the land before sowing, and, secondly, upon the manner in which you tend the crop. If weeds are entirely kept down, and the surface is stirred as often as once in every ten or fifteen days—especially if the season is a dry one—you will rarely fail of obtaining at the rate of from *six* to *twelve* hundred bushels per acre. The crop will not depend so much upon the *season* as upon the *plowing*, *manure* and attention you give it yourself.

The use of the *wheel hoe* will save half the labor of cultivation which the old mode with the common hoe required.

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TENACITY OF TURKEY LIFE.

When I lived at my father's, some forty years ago, they had a turkey blown from her roost on a tree, in a snow storm in *December*. She did not thaw out of the drift under which she was covered till *March*, but came out alive, lived, and raised up a good brood that year!

THOMAS GOODWIN.

South Berwick, January, 1855.

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VITALITY OF GARDEN SEEDS.

Will you state in your columns what garden seeds will come up when they are more than one year old? D. CHILDS.

REMARKS.—Most seeds will vegetate when more than a year old, if they were gathered at right seasons, and properly preserved. Parsnip seeds quite often fail, but we have used those two or three years old, when they came up well. Garden seeds should be gathered a little previous to full ripeness, and a good way is to cut up the plants—the best parsnip, carrot and onion, for instance—and hang them in sheltered places for a week or two, when the seeds will become plump and perfect. Then they should be rubbed out, and placed in boxes or bags, and their names and date of raising legibly marked upon them. If not all used the first year, you will then know their age. Seeds thus put up should be placed in some dry place, of as equal temperature as is convenient—such as a closet in the centre of the house, or in chests in the attic, chamber, or workshop, where they would be quite likely to remain good for many years.

AMERICAN POMOLOGICAL SOCIETY.

In our last, we gave several paragraphs from the opening Address of the President of the American Pomological Society, at its session in September, upon the *production of new varieties of fruit from seed*. We continue the subject by presenting some brief extracts from the same source, upon *the arts of cultivation*, and *the preservation and ripening of fruit*.

"The absolute necessity of proper preparation, and deep and thorough cultivation of the soil, especially for certain fruits, is now generally admitted, though regard must always be had to the natural activity in the sap of the species, and to the degree of fertility of the soil. Surely it would be unwise to apply the same cultivation to the peach and the cherry, as to the apple and the pear, or to treat any of these on new and fertile grounds as in old and exhausted lands.

The influence of soils is remarkable. But by these we do not mean the identical spot, the artificial bed in which the tree stands; for, in time, the roots take a wide range in search of food. Some fruits are good in nearly all places; others, only in their original locality. Some succeed best on light, loamy, or sandy soils; others, in stiff clayey soils. In the latter, many pears, for instance, the Beurre Bosc and Napoleon, are astringent, while in the former they are entirely free from this quality. The Beurre Rance, in England and in some parts of France, is the best late pear. So it is, also, in some parts of the soils in Belgium; while with others, and with us, it is generally inferior.

The flavor of fruit is much influenced not only by soil, but also by climate and meteorological agents. Thus, in a cold, wet and undrained soil, disease commences in the root; and, as a natural consequence, the juices of the tree are imperfectly elaborated, and unable to supply the exigency of the fruit. Even injurious substances are taken up. A plum tree has been known to absorb oxide of iron, so as not only to color the foliage, but also to exude and form incrustations on the bark, and finally to kill the tree. As an instance of climatic agency, it is sufficient to report the fact, that out of fifty varieties of American peaches grown in the gardens at Chiswick, England, only two were adapted to the climate.

In relation to *appropriate fertilizers for fruit trees*, a diversity of opinion prevails. All agree that certain substances exist in plants and trees, and that these must be contained in the soil to produce growth, elaboration and perfection. To supply these, some advocate the use of what are termed *special* manures; others ridicule the idea. We submit whether this is not a difference in language, rather than in principle; for by *special* fertilizers, the first mean simply those which correspond with the constituents of the crop. But are not the second careful to select and apply manures which contain those elements? And do they not, in practice, affix the seal of their approbation to the theory which they oppose? Explode this doctrine, and do you not destroy the principle of manuring and the necessity of a rotation of crops? Trees exhaust the soil of certain ingredients, and, like animals, must have

their appropriate food. All know how difficult it is to make a fruit tree flourish on the spot from which an old tree of the same species has been removed.

The great practical question now agitating the community is: How shall we ascertain what fertilizing elements are appropriate to a particular species of vegetation? To this, two replies are rendered. Some say, analyse the crop; others, the soil. Each, we think, maintains a truth; and both together, nearly the whole truth. We need the analysis of the crop to teach us its ingredients, and that of the soil to ascertain whether it contains these ingredients; and if it does not, what fertilizers must be applied to supply them. Thus, by analysis, we learn that nearly one-quarter part of the constituents of the pear, the grape and the strawberry, consists of potash. This abounds in new soils, and peculiarly adapts them to the productions of these fruits, but having been extracted from soils long under cultivation, it is supplied by wood-ashes or potash, the value of which has of late greatly increased in the estimation of cultivators.

There is but one other topic to which I will advert,—*the preservation and ripening of fruit.*

Much progress has been made in this art within a few years, and important results have been attained. The principle has been settled that the ripening process can be controlled. Autumnal fruits have been kept and exhibited the succeeding spring. We have seen the Seckel, Bartlett, and Louise bonne de Jersey pears in perfection in January, and even later. The maturity of fruits depends on saccharine fermentation. This is followed by other fermentations, as the vinous and ascetous. To prevent these, and preserve fruit in all its beauty, freshness and flavor, the temperature must be uniform, and kept below the degree at which the fermentation or the ripening process commences. Our remarks, like our experience, have special regard to the apple and the pear, though the principle is doubtless susceptible of a more extensive application. Fruits, designed to be kept for a considerable time, should be gathered with great care some days before the ripening process commences, especially summer pears. A summer pear ripened on the tree is generally inferior. In respect to the latter, Mr. Barry, editor of the *Horticulturist*, has so aptly expressed my own sentiments, that I use his language. 'The process of ripening on the tree, which is the natural one, seems to act upon the fruit for the benefit of the seed, as it tends to the formation of woody fibre and farina. When the fruit is removed from the tree, at the very commencement of ripening, and placed in a still atmosphere, the natural process seems to be counteracted, and sugar and juice are elaborated instead of fibre and farina. Thus, pears which become mealy and rot at the core when left on the tree to ripen, become juicy, melting and delicious when ripened in the house.' Various fruit-houses have been built, both in this country and in Europe; and experience shows that their object can be attained only by a perfect control of the temperature, moisture and light. Hence, they must be cool, with non-conducting walls, or with exterior and interior walls, or a room within a room. Thus the external atmosphere, which either starts the saccharine fermentation or conveys the agents which produce it, can be admitted or excluded at pleasure. It is possible, however, to preserve the temperature at so low a degree and for so long a time as to destroy, especially with some varieties of the pear, the vitality, and therefore all power, ever to resume the ripening process. Experience proves that for the common varieties of the apple and pear, about forty degrees of Farenheit is the temperature best suited to hold this process in equilibrium.

The proper *maturing* of fruit thus preserved, demands skill and science. Different varieties require different degrees of moisture and heat, according to the firmness of the skin, the texture of the flesh, and the natural activity of the juices. Thus, some varieties of the pear will ripen at a low temperature and in a comparatively dry atmosphere, while others, as the Eastern Beurre, are improved by a warm and humid air.

Some varieties of the pear, ripening with difficulty, and formerly esteemed only second rate, are now pronounced of excellent quality, because the art of maturing them is better understood.

But so many experiments have been tried, or are in progress, and so much has been written on this branch of our subject, that I need not enlarge except to say that the art of preserving and ripening fruit in perfection, involves so much scientific knowledge as to require great attention and care; and, until its laws are more fully developed, must be attended with considerable difficulty. I therefore commend it to your special attention, as second in importance only to the raising of new varieties.

But I will not prolong these remarks. Your own observation and experience will readily suggest other felicitous illustrations of the principles to which I have adverted. I will merely re-affirm, what our friend Thomas has so justly asserted, 'that fruit and fruit trees, in all stages of their existence, need care and attention.' I will add, also, that here, as in every other department of cultivation, *eternal vigilance is an indispensable condition of success.*"

IMPORTANCE OF FOREST TREES.

[The following is an extract from a paper read by Dr. Hawks, before the Geographical Society of New York:]

"Civilization uses a vast amount of wood, although for many purposes it is being fast superceded; but *it is not the necessary use of wood that is sweeping away the forests of the United States, so much as its wanton destruction.* We should look to the *consequences* of this. Palestine, once well-wooded and cultivated like a garden, is now a desert—the haunt of Bedouins; Greece, in her palmy days the land of laurel forests, is now a desolate waste; Persia and Babylon, in the cradles of civilization, are now covered beneath the sand of deserts produced by the eradication of their forests. It is comparatively easy to eradicate the forests of the North, as they are of a gregarious order—one class succeeding another; but the tropical forests, composed of innumerable varieties, growing together in the most democratic union and equality, are never eradicated. Even in Hindostan all its many millions of population have never been able to conquer the phœnix-life

of its tropical vegetation. Forests act as regulators, preserving snow and rain from melting and evaporation, and producing a regularity in the flow of the rivers draining them. When they disappear, thunder-storms become less frequent and heavier, the snow melts in the first warm days of spring, causing freshets, and in the fall the rivers dry up and cease to be navigable. These freshets and droughts also produce the malaria which is the scourge of Western bottom-lands. Forests, although they are first an obstacle to civilization, soon become necessary to its continuance. Our rivers, not having their sources above the snow line, are dependent on forests for their supply of water, and it is essential to the future prosperity of the country that they should be preserved."

FIFTH LEGISLATIVE AGRICULTURAL MEETING.

Reported for the New England Farmer,
BY WILLIAM W. HILL.

No. 5, in the series of agricultural meetings, was held in the Representatives' Hall, at the State House, on Tuesday evening, 13th inst.

SANFORD HOWARD, Esq., of the *Boston Cultivator*, presided, and opened the discussion of the evening. After some remarks in regard to the influence of domestic animals, on civilization, their native localities, &c., he proceeded to speak of the fact that our domestic animals, not being native to the soil, but brought over by the colonists from various localities, presented a miscellaneous character at the outset, and the want of skill in the propagation has led to great diversity. In this respect, however, proper attention is beginning to be devoted to the subject. Two or three questions had been put into his hands, the writers requesting his views thereon. One was, "What are improved breeds of cattle, and how are they produced?" He would reply that a breed of cattle may be said to be improved when the standard is raised in regard to any particular quality,—as the yield of more milk or flesh. They may be improved in one quality and lose in another; as an animal may be made to yield more abundantly of milk, but it will decrease proportionably in flesh, and the flesh may be increased, but the milk will be diminished at the same time. The object should be to work for a particular object, and if the animal deteriorates in some other respects, no matter. The means to be used are very simple, although much judgment is requisite in the use of them. It consists in propagating from those animals which possess in the highest degree the qualities we desire. Another question asked was, "What is breeding in-and-in?" While some applied the term only to animals distantly related, he conceived the only true idea of the matter to be that it applied to creatures of the same blood. The consequences of breeding in-and-in he believed might be either good or bad, and depended wholly on the skill of the breeder. As proof that breeding in-and-in is not contrary to nature, he referred to birds, the buffalo, &c., in a wild state. It is known that they breed "in-and-in" constantly, and yet no deterioration takes place. He had known geese to be propagated in this way for forty years, and not the slightest depreciation in size, quality or feather was visible in them. Still, cases could be cited where breeding in-and-in had produced bad results; yet he thought they might be satisfactorily attributed to imperfections in the parent stock. It is only necessary to select perfect specimens. A third question was, "Are small lungs an advantage in cattle designed for fattening?" This idea might seem perfectly prepesterous, but the theory has been broached by some who professed to raise cattle on scientific principles. The theory is that, with small lungs, the animal cannot throw off so much carbon, and therefore more of it is retained to be converted into fat. This is a great fallacy, for when the organs of the creature are most fully developed and healthiest, then is fat generated the fastest.

Mr. BROOKS, of Princeton, followed, and remarked that he did not profess to have much knowledge in regard to raising cattle, yet from what experience he had had, he was of opinion that breeding in-and-in was a very poor system. He had succeeded badly in all efforts in that direction. It might have been owing to defects in the animals selected, but he could discover none at the time. He agreed entirely with the chairman in regard to the effect of contracted lungs in fattening cattle. Good health is essential to fattening stock, and this could not be maintained without good lungs in cattle any more than in men. The small lungs of Durham cattle were in his mind a serious drawback upon their value. They are more liable to disease than native or other breeds, in consequence of this peculiarity, and they do not work so well, not having so good wind. He thought the State should take in hand the subject of making experiments in regard to cattle. The climate he considered had a good deal to do with the class of animals which we need to raise. Perhaps native stock would be the best to rear from, as they are acclimated, while foreign breeds cannot bear our climate, and consequently deteriorate. In order to obtain a desirable race of animals, the best specimens among us should be selected. It would take many years to accomplish this object, however.

Mr. MERRIAM, of Tewkshury, said that some of Mr. Brooks's conclusions were at variance with his experience. He had bred Durham cattle for the last fifteen years, and considered their speed as travellers, remarkable. He considered them good workers, having used them on his farm;

they keep as easy, eat as heartily, and withstand the cold as well as any other kind of cattle.

Mr. Sheldon, of Wilmington, strongly urged the superiority of the native cattle over all others. In 1835 he worked 113 cattle in this city, among which was a yoke of good Durhams, but he thought they were not so spry as the others.—Talking with one of his old teamsters last week, he asked him to name the cattle which he could recollect were considered by himself and others to be the best in Mr. Sheldon's possession while he was in his employ. The teamster mentioned some eight or ten yoke, all of which were native stock. If you go to the butchers, nine out of ten of them will tell you that the flesh of native animals suits their customers better than foreign, and at Brighton, handsome native cattle are the most praised by the butchers. As an offset to Mr. Sprague's remark, last Tuesday evening, that the specimens of superior native cattle cited were selected from drovers of a thousand at Brighton, he would remark that the specimens of foreign animals brought to this country are selected from herds of tens of thousands, and at enormous prices.

Mr. Buckminster, of Framingham, thought that finer cattle than some of our native stock could not be found, and that we ought to cultivate it. He denied very positively that a yoke of pure blood Durham or Devon oxen had ever been seen in this country. He explained the reason to be that breeders could get more for a single bull than for a pair of oxen, and hence would not raise oxen. The cattle we have are crosses, and he would give ten dollars to the man who would find a yoke of pure blood Durham or Devon oxen in this State. By selecting the best native bulls and cows, he thought a very superior race of cattle could be obtained. In fifty years we might get up as good breeds as any in England. Our fault is that we have not patience enough in this matter, and are not willing to wait for such a result. As to breeding in-and in, he did not see any difficulty in it, if properly understood. The human race sprung from one pair, and wild horses, which are swifter and stronger than those domesticated, breed in this manner. He stated that stock imported into this country forty years ago, had grown better and better under this system. He remarked, in conclusion, that the cows of this Commonwealth did not probably yield, on an average, more than five pounds of butter per week, while, with proper attention to the animals, ten pounds might be obtained from the same amount of food consumed.

Mr. Frederick Emerson, of Boston, said it was very uncertain what was meant when "native" stock was spoken of, and described several varieties which would probably be called native by some.

Mr. Merriam thought the discussion had shown that all were agreed as to the necessity of *good blood* in order to secure good cattle. Let the farmer ascertain definitely what he wants in an animal—beef, milk, or working qualities—and then select accordingly.

Mr. Fay, of Essex, said the quickest way to obtain a good breed of cattle was to select a pure blood bull from a mother possessing in the highest degree the qualities desired, and take a mixed female. The pure blood will finally overpower and eradicate the mixed blood, and the progeny will be of pure blood. A French gentleman had succeeded in doing this with sheep in five crossings. He commenced by uniting a pure merino with a pure Leicester, and the result was a mixture which produced sometimes one thing and sometimes another—a pure merino or a pure Leicester, just as it happened. He found that this would not work. Two pure bloods were brought together, and they only wavered without producing any decisive result. He therefore, after much reflection, procured a sheep whose blood had been mixed five or six times, and placed her with a pure male. The consequence was that he attained the object he sought, a peculiar breed of sheep. The mixed blood becomes purer on every crossing. If it is desired to raise a particular race of cattle, instead of looking for superior animals of both sexes, take a pure blood bull and the most mixed male that can be found, no matter how inferior, even if one horn grows downward.

Mr. Dodge, of Sutton, thought it would take at least twenty years to get a race of cattle such as we want, and that there was nothing better to begin with than our native cattle.

After considerable discussion, it was voted that the subject of *Farm Stock* be continued for discussion another evening, and at 9½ o'clock the meeting adjourned.

For the New England Farmer.

CORRECTION.

Mr. Editor :—Sir,—Permit me to correct a few mistakes that occur in a report of my remarks at the *State House*, published in your paper of the 10th ult. In one part I am made to say that in order to mitigate a disease known as *pleuro-pneumonia*, "*the farmer is to innoculate the diseased ones with the breath of the healthy and a cure will be the result.*" I stated that veterinary surgeons in Europe, are now experimenting, by innoculating cattle for *pleuro-pneumonia;* that they obtain *matter* (not "breath") from the diseased animal, and introduce it into the systems of healthy ones in view of palliating that awful disease.

Spasmodic "*cholera,*" should read *colic*, is located in the muscular coat of the intestines. It arises from perverted nervous action, and therefore, medicines that act on the nervous system of an anti-spasmodic character, should be used.

Yours, with respect, G. H. Dadd, V. S.

For the New England Farmer.

FARMING IN IOWA.

Mr. Editor :—I have been highly entertained by the monthly visits of the *New England Farmer* during the past year, and have made the necessary arrangements for its continuance. Whoever gets your monthly for a dollar, gets his money's worth, and I would here recommend to every farmer to trade a dollar for it.

I don't know as you down-easters have any special interest in us, away out in these prairies, but, perchance, there may be some among you, who may think of coming hither some day, and would be glad of some items. Our winter has been delightful, much like a southern winter, with the exception of their rains. You all know, right at home, something about a drought the past summer and fall; but yours is over, ours continues. Springs and wells are low, and the scarcity of water in many places is great. The winter has been so mild, there will be sufficient food for stock, and as for the swine tribe, I believe they will all be killed to save corn,—not for the price they bring, being only $3,50 per hundred. Short as the crops of corn are, a man can get more for a day's labor than he can pack home on his back. I mean at one time.

Cattle and horses are high, and the wherewithall to buy them scarce. The bank panic among our neighboring States injured business a little, as we have a large circulation of their currency. When times are dull in the east, many mechanics are usually seeking the west to better their condition, and perhaps to change their occupation, to enter upon the delights of farming. Well, there is an ocean of land here.

"Uncle Sam has land enough to give us all a farm,"

but he don't own much in this State adjoining a village, a post-office, school-house, saw and grist mills, and mechanics' shops of various descriptions. His land is generally situate beyond these, but he has situations enough for them, if you can be patient until you build them. Now all ye men and women, who are romantic, able and willing to work without cider and apples, and well fortified with patience and the "material aid," "come along," for Uncle Sam's lands afford great openings for you, and a few years of "patience and well-doing" will secure you a good and beautiful home. Bear in mind, my immigrating friends, we shall all be glad to you—the more money you bring, the greater our joy; and also bear in mind not to expend all your money for land—have a *balance* to buy your team, your farming utensils, your household furniture, your provisions for the first year, &c. &c. We, old citizens, can't borrow money less than two figures in the per centage. New countries are better to loan money in than to borrow. Keep out of debt, if you don't own all the land that adjoins you.

If any live Yankee has the fancied notion, that he can make an honest and genteel living, even on our fertile land, without labor, the trial will take it out of him.

There is an abundance of land in market besides Uncle Sam's, and far better improved, but not at his price. Some have not got far enough west,—neighbors too near,—would sell and go where there is more breathing-room,—some not exactly satisfied, perhaps the lady discontented,—too far from her ma; some would sell, because they can get a few dimes more than they gave; others are obliged to sell, because they have done, as many more will do, bought more land than they can cultivate or pay for. We have specimens of all character from every country.

I am half inclined to be grave, and contrast the Western with New England farming, but I fancy my brevity will entertain more than my gravity could.

Jan. 21.—The greatest snow-storm we have had for many years. Nemo.

Burlington, Iowa, Jan. 21, 1855.

For the New England Farmer.

MONTHLY FARMER FOR FEBRUARY.

February, though the shortest month of the year, is the grand battle-ground of the belligerent forces of the Seasons. The Sebastopol of Winter is now besieged by the allied armies of Sun, Rain and Wind. The few breaches they effect in her battlements, are, however, speedily repaired by General Frost. But every morning the big gun of Summer is found to be a little nearer its walls than it was the day before, and its fire proves warmer and warmer. And the wind, too, so long doubtful on whose side to battle, begins to show very clearly that the Northern Bear can count on his aid but little longer. February, then, decides the contest,—though there may be skirmishes in March and April,—and our Sebastopol *is* taken! Winter surrenders! But, as with all other tyrants, it is one thing to break his power; quite another to improve his disposition.

Though February is a short month, I do not find the *Farmer* any shorter than usual. With the advertising patch reclaimed, there is now more room than ever, and every corner is filled. Following the editor's *Calendar*, we find the tri-headed article,—

The Potato—Curculio—Shad-bush,—which shows how the writer, who cultivated potatoes in a field with several others, raised the best crop of all; how he saved his plums; and how a pear that he grafted on a shad-bush, grew, bore fruit two or three years, and died—as all such grafting does, so far as I have observed. Years ago I tried the experiment, with no better result.

Grass Crops.—Dissertation on the value and the cultivation of this important crop.

Selection of Apples.—A list of twenty kinds of apples, that an old grafter recommends from actual trial and personal knowledge.

Lime—Salt—Corn.—Inquiries about salt and lime as manure, used as Prof. Mapes directs; with the writer's plan for a corn-crop.

State Board of Agriculture.—Report of operations on the farm of the State Reform School.

Fall Plowing—Plaster.—What "Plaster from Vermont" means I do not know. Mr. Adams, who spent two years on a Geological Survey of that State, gave no encouragement of finding it there, although it is used to some extent by the farmers in the Champlain valley. Was Mr. Woods' Plaster, lime made of the shell marl that is found in the northern part of Vermont? Mr. W. also says fall-plowing destroys worms. Another arti-

cle objects that fall-plowing exposes the manure to waste.

Official Visits to Farmers.—Recommending the employment of men in each county, under the appointment and pay of the State, to visit farms reported to be good, and to present the facts ascertained through the press. For my own part, I don't like that word "official." Mr. Colman once held an office similar to the one proposed. In his valedictory preface to the Fourth Report, he says:—"By many persons, the Commissioner has been regarded as a kind of tax-gatherer, and his approach has carried their hands, almost involuntarily, to clench their pockets."

Culture of the Pear.—"75 cents a dozen," "$1,50 a dozen," "6 cents each," "12 cents each," and such like, are every fall on the cards in pear dishes, displayed in the fruit stores of Boston. This article comments on and recommends choice varieties, and then promises to give us the writer's views on the proper culture of the Pear, which I am looking for with much interest.

Dairies.—Report of Middlesex County Committee, in which some thrusts are made at certain Book-farming cows.

Poultry cheaper than Pork, if figures don't lie.

Pulverized Peat.—May not this material be used to save a portion of city waste? What has become of *that* committee?

Value of Root Crops.—This article is reviewed by E. C. P. on page 90, in a sensible article headed *Relative Value of Food.*

Wire Fences, made by Machinery.—The pictures of this fence make a pretty appearance on paper, and may work well on the farm, where fencing is expensive. From my observation of the effect of the climate upon iron, I have always feared that rusting would prove a serious objection to wire fencing. But it seems that no trouble is anticipated from this source, as it is "calculated" to last a century or more, by being varnished, painted or tarred once in five or six years.

Basket Willow.—Whether the people of the United States can raise their basket-stuff better than they can their silk dresses, seems about to be tested. We have in this number an account of a successful experiment in raising the Willow in Hingham, Ms., and also of a machine for peeling it, invented in Vermont. The "rod is in a pickle," then; but, gentlemen, don't get up a multicaulis fever with it. Do let us be sober once.

An Agricultural Glimpse of Washington City.—Two very interesting letters by one of the Editors. Pity such pictures of life should be drawn in the capitol of a free people.

Profits of Hens.—Why are hens worth a third more in December than in March?

Turnips for Pigs.—The writer found that Swedish turnips wintered over, and fed raw to his pigs in June, kept them growing finely.

Legislative Agricultural Meetings.—We have the reports of the first two meetings of this association, at which the subjects of last summer's drought, and of the small grains, were discussed.

Serf Labor in Poland.—When any American farmer gets the blues, let him turn to the monthly *Farmer*, and read this extract.

Value of Apples.—An article that embodies the result of much labor to ascertain the value of apples, by scientific processes. The conclusion seems to be that for fattening stock, sweet apples are worth as much as potatoes; and that sour apples are worth twice as much as potatoes for growing stock, compared by weight, not measure.

Machine for Chopping Brush, that does the work of forty men! Many farmers in Massachusetts burn little but brush, themselves, as the merchantable wood is all sent to market, and it is lots of work to chop it up with axe and hatchet. Don't see why a brush cutter might not be of great advantage, where wood is worth six or eight dollars a cord. True, the work by hand may be done evenings and at odd jobs; but I have thought sometimes, this winter, that I had rather be reading the *Farmer*, than cutting brush by lamp-light, to keep one stove warm.

Although I have alluded, directly or indirectly, to only about one-half of the articles that make up this number, I will stop here, and claim for once the merit of brevity—a higher mark than I often deserve. A READER.

Winchester, Feb., 1854.

ENCLOSURES.

There is, perhaps, no department of agriculture which can properly be considered of more immediate importance to the farmer than that of FENCING. Yet, singular as it may seem, there is none which, by the generality of husbandmen, is so much neglected, or more badly managed. The habit, already become inveterate, in many sections, of compelling the animals of the farm to carry the fences on their horns and necks, in the shape of "blind-boards," "stoops," "hampers," "jewsharps" and "pokers," is one that calls loudly for reform. Good and substantial fences are by no means so expensive as they are supposed to be; and if, to adopt the language of an able writer in a late New York paper, "the proportion of crops that are annually lost in the country from the use of such apologies for fences as are frequently seen, could be correctly ascertained and added to the sum which must be deducted from the value of the horses and cattle thus taught vicious and unruly habits, and the whole presented at once to the eye of the farmer, or land-holder, it can scarcely be doubted he would be surprised at the result, or that he would at once awaken to the importance of having good fences." As to the cost of fences, the following remarks, published some years since by Mr. SHURTLEFF, in the *Farmer*, afford valuable data.

A fence of white cedar—posts and rails, five rails in height, and three lengths to two rods; cost *nearly* ninety-one cents per rod.

A fence of white pine and chestnut—rails white pine, sawed two inches by eight, chestnut posts, four rails high, three lengths to two rods; cost sixty-four cents per rod. In both these cases the cost was exclusive of the setting.

Stone wall—four and a half feet high, varied from one dollar to two dollars fifty cents per rod,

according to the amount of labor required in transporting the materials, and the manner in which the wall was laid, whether by trenching or otherwise.

Hedge fence, made of Virginia thorn plants—(*crataegus cordata*) set twenty-one to a rod; cost, at the end of the fourth year, including planting, trimming, etc., *fifty cents* a rod! This statement with respect to the cost of hedges of Virginia thorn, accords well with the experience of others who have introduced this species of enclosure on their lands, and especially with those of Mr. KIRK, of Pennsylvania, whose experience in this particular department of farming, probably exceeds that of any person in the United States. The cost of stone wall, we think, will generally be not far from $1 per rod, and if from this we deduct the increased value of the soil, permanently improved by the removal of the stones, and the very important advantage resulting from having them placed forever out of the way, the expense of this highly valuable and desirable species of enclosure will probably be less than that of hedge. But hedges, when properly managed, are very desirable. They are not only permanent, but very efficient as a protection against the depredations of every description of animal ordinarily found upon our farms. They are also very ornamental, and communicate a rural aspect to the country which other species of enclosure cannot equally confer.

The editor of one of our agricultural publications, in some observations pertinent to this subject, says:—

"We have found by experience that in making fence of posts and rails, or posts for bars or gates, there is nothing gained by making the posts too small. Perhaps there is no timber in which the difference of durability between large and small posts is more striking than in that of the common white cedar or cypress of our swamps. Mr. Shurtleff found his cedar fence to last about fifteen years, the posts rotting off in that time, and perhaps fifteen years may be set down as about the ordinary duration of a wood fence, let the method of construction be what it may. This single fact should cause farmers and land-owners to pause, and ask, where their fences are to come from, when their present, and perhaps already half-decayed, wood fences are rotten and gone? We are convinced that, ere many years, want of fence will be one of the most serious evils the farmer will be called to encounter."

WHEAT.—According to the most correct analysis, wheat contains, in one hundred parts, 3.3 per cent. of ashes, and these ashes consist of 12 per cent. lime salts, and 51 of silica, or sand. Hence, wheat will sometimes succeed after buck-wheat, as they are composed of different elements, both of which may co-exist in the soil.

For the New England Farmer.

A WORD IN SEASON ABOUT GUANO

BY DR. JOSEPH REYNOLDS.

The failure of guano to produce the beneficial effects expected from it, the past season, seems to have destroyed the faith of many farmers, in its value as a fertilizer. For my part, I have not lost my faith in it at all, but I think I have learned something from observation, with respect to the proper mode of applying it. Indeed, the experience of the past year has only confirmed an opinion which I have long had, that the efficacy of guano depends essentially upon the mode of its application. Last spring an idea got into extensive circulation, that the mixing of guano with other substances was but little better than labor lost. Hence, many farmers put it into the hill, and planted their corn, or other seeds, in direct contact with it, or with only a little earth thrown over it perhaps with the foot, in dropping the seed. In this state, when the tender radicles of the corn shot downward, and came in contact with the guano, which had now become softened into a caustic paste, they were at once burned and destroyed, as they would have been in a paste of lime or ashes. After the corn was planted, but little rain fell for some weeks. Probably in many instances no rain reached the guano to dissolve it, and diffuse it through the soil, but it all remained, confined to a small space, except what was given off in the form of vapor, and acted, when it acted at all, in a concentrated form.—This may be illustrated by the action of certain caustic substances—ammonia, for example—when applied to the surface of the human body. When this is applied in a diluted form, over a considerable surface, it stimulates the vessels of the skin to a more vigorous performance of their natural functions; but when applied in a concentrated form, it destroys the entire tissue to which it is applied, and leaves an unsightly and painful ulcer. One of the best fields of corn which I saw in this town, the past season, was raised with guano in the following manner: After the ground had been properly prepared, a furrow was made for the row, of the common depth. The guano was sprinkled into this furrow, through its entire length. It was then covered with the hoe to the depth of two or three inches, and the corn dropped upon this covering, the kernels being placed eight or ten inches apart. The yield was estimated, notwithstanding the drought, at a hundred bushels per acre. Where it is preferred to plant in hills, rather in drills, the guano should, if used unmixed, be sprinkled over at least a square foot of surface, at the bottom of the furrow, and be covered with about two inches of soil, and the corn dropped upon this.

But my object in writing at this time is to say a few words about the use of guano as a top dressing. Those farmers who intend to use it for this purpose, should improve the present time to obtain it, and prepare it for use. During the stormy days of this month, or the early part of March, when they cannot work out of doors, they can pulverize it upon the barn floor, and stow it away in barrels for use. During the cold weather it gives off but little of its ammonia by exposure to the air. But during the warm days of spring, when exposed, it parts with a great amount

of it. My own belief is, that it is best, for whatever use it is intended, to mix it with plaster, pulverized peat, fine dry compost, or in the absence of anything better, with fine rich soil from the garden. These should be mixed with it in the proportion of at least five bushels to one. If this mixture is now made in the barn floor, or in a dry cellar, whatever ammonia is given off by the guano will be absorbed and retained by the diluting substance. If before you have occasion to nse the mixture, you should find it smelling of ammonia, dissolve five or six pounds of copperas in a barrel of water, and occasionally sprinkle the surface, or throw over it an additional quantity of pulverized peat, or a little charcoal. In this way, you will have your guano ready to apply as a top-dressing, at the time when it should be applied, which is as soon as the frost is out of the ground, and the grass begins to start. If you can avail yourself of a new-fallen snow, about the first week in April, as is often the case, you will be able to sow it more evenly. If not, sow it during or just before a rain. If sowed upon dry land, and the sowing should be followed by several days of bright sunshine, a great part of its value will be lost.

When used as a top-dressing, it is worth much more upon moist than upon dry land. Two years ago, Friend Dyer, of the Shaker establishment at Lebanon, sowed guano upon four acres of grass, in the middle of a large field, upon a side-hill, where the land was moist and springy, and he judged that it doubled his crop, although the crop was good before. The expenditure of five dollars to the acre gave at least an additional ton of hay. A gentleman who lived a mile off, told me he could mark the limits of the said four acres through the whole season, from its superior greenness. A gentleman in the neighborhood sowed his guano the latter part of May, after the land had become dry, and it did little or no good.—Here then is a practical lesson which should not be forgotten.

I am acquainted with many instances where the crop of grass has been doubled by the application of 250 or 300 lbs. to the acre; but in every instance the land was moist, and the guano was applied early. When the land is dry, provided it is level, so that the rain and snow that fall upon it will not run off, it will probably be best to apply it later in the fall. Then the rains and melting snows will carry it into the ground. When the land is uneven, or the surface is inclined, as on a side-hill, so that the surface water will run off before the ground is thawed in the spring, the dissolved guano will be carried off by the water, and nearly the whole value will be lost, if it is applied in the fall. As a top-dressing to winter wheat and rye, I think it will be found no less efficacious, than when applied to grass, provided the above conditions are observed in the application. When rye is grown upon very dry land, as is usually the case with us, I think it will be better to plow and harrow it into the soil, when the rye is sown. Again I say, that no time is to be lost in purchasing and preparing the guano which you intend to use as a top-dressing. J. R.

Concord, Feb. 15.

Peas.—The soil for peas should not be too liberally enriched. A great degree of fertility appears not to be requisite to develope the excellencies of this crop, which is indebted less to the soil than many other vegetables, and more to the air, for the food which perfects its growth.

TO YOUNG MEN AT SCHOOL.

AN APPEAL TO THOSE THAT MOST FREQUENTLY MAKE TROUBLE.

Those to whom we refer is a class of young men, who attend the winter schools, and are so disorderly, and in some cases determined not to obey the teacher, that things are rendered trying and disagreeable; and the usefulness of the school is much prevented. They are from 12 or 14 years of age, up to 20. It is not common to find female pupils of these ages that make trouble.—There is generally too much pliancy, delicacy and refinement in them for this. Man has more roughness in his nature, and unless he exercises self-control, he will go far astray.

In a few observations for the benefit of this class, let it be said that your teacher may not be right in every course he takes, nor in everything he does; but then it is not for you to correct him or to be revenged on him for any acts that are not just what they should be, by disorder at school. He is to be approached and advised by the committee, or by your parents, or it may be by yourselves in a private manner if he judges you wrongfully, or does not help you in your studies as you have need. But it is often the case that it is the determination on the part of a few on the first day or week of the school, and sometimes even before it commences, not to like, and to be disorderly. This is unfair and unjust.

Now what can be gained by disrepect to the teacher, and by ungoverned conduct at school? Is it of any value to you to prevent the peace and quietness of the school, and thereby have many that attend it, hindered in their studies, and time and money lost? Do you wish to lose the precious opportunities afforded you of getting that knowledge that will be more valuable than gold? Have you not self-respect enough to conduct with propriety and decorum? Do you not wish to act the part of gentlemen? We appeal to all that is honorable in you not to let yourselves down by opposition to the teacher, and to the disgrace that attends the trouble you may make in the school. Be kind and respectful towards the one that has charge. Be orderly and polite, instead of being wayward, coarse and vulgar. It is the direct way to rise to places of usefulness, fame and peace. —*Exeter News-Letter.*

For the New England Farmer.

MR. CLARK'S COW.

In the *Boston Journal* of Jan. 23, it is stated, by Mr. Clark, of Sunderland, that *one pound one ounce* of butter was made from *three quarts* of the milk of his cow—her feed *corn fodder only.* I think it must have been, like the Dutchman's *wheat-straw*, on which he kept his fat horse, *very poorly threshed.* This goes ahead of Mr. B.'s Devons or M.'s Jerseys. I should like to know, whether this milk was a fair average of the product of the cow, or whether it was *the strippings.* One story may be good until another is told. It will not do to *deny anything.* X.

Jan. 29, 1855.

HORTICULTURE.

PRUNING THE GRAPE.

Our people are beginning to appreciate the value of the grape, both as an article of food, and as affording a pure and wholesome tonic for the sick and infirm. As an ornament, also, in the grounds about the house, it is scarcely excelled by any of the plants which are sufficiently hardy for our climate. There is great uncertainty in the mind of many persons as to how and when the grape vine should be pruned, and finding an excellent article in the *Country Gentleman* on the subject, we have incurred the expense of engraving the cuts annexed, in order to give practical illustrations of the mode of pruning and training. These, with the explanations, will make the whole so plain, that all may cultivate the grape with a certainty of success.

Fig. 1.—Portion of a grape vine in bearing, representing the bearing branches, from the sides of a last year's vine.

A correspondent at Southeast, N. Y., requests a chapter on the pruning of the grape. He adds, "I do not trim on the renewal system, and I find that this year's shoots that are to be next year's bearers, if kept without any trimming, fling out such a profusion of side-shoots that they become altogether too thick; and by trimming them off, the bud which should be left to grow next spring, will grow this summer and proouce a crop of grapes. I had grapes on such vines this year that were about full grown when frost came. I cannot keep the vines thin enough without taking off the side-shoots. I also wish to ask whether, in grafting the vine, if we have little vines up, shall we graft them, and then set them out as we do root-grafted apple trees, or must they be cut off below the surface and be grafted when they are growing?"

[Our experience suggests that, if *taken up* and whip grafted, and then planted out, they are sure to succeed; cover the scion with earth up to the topmost bud.—ED. FARMER.]

In compliance with the request of our correspondent, and in reply to frequent inquiries, we furnish a few hints on pruning the grape, which we shall endeavor to make sufficiently plain by reference to figures, that inexperienced cultivators may easily understand them. A well-pruned vine will not only produce *earlier* fruit, but it will be larger, and incomparably superior than on one left to straggle without care.

There are two leading principles that should be always observed in pruning the grape, whatever may be the particular mode adopted. The first is, that the vine *always bears the fruit on the present year's shoots*, which have sprung from buds on the previous year's growth, (Fig. 1.)—Secondly, that the full growth and perfect ripening of the *fruit* depends wholly on the healthy, well developed *leaves*, which supply food to the forming berries, and hence the growth must not be allowed to become so thick that the leaves cannot properly develop themselves, nor should the vines be trimmed so closely that there shall not be leaves enough for the perfection of the fruit. These two facts must be always borne in mind by those who would raise the best grapes. These being understood, we now proceed to the details of pruning.

FIRST YEAR.—When a vine is first procured from the nursery in spring, it is usually furnished with several irregular shoots of the previous summer's growth, resembling Fig. 2. These should be all closely pruned to the older wood, leaving only the strongest, and this should be cut back so as to leave but two or three buds, (Fig. 3.) These buds will grow, and when only a few inches in length, the strongest shoot must be selected, and the others rubbed off. This single shoot is allowed to grow till about the first of autumn. After this period, the new leaves and wood that are formed, cannot mature perfectly, and their growth will be in some degree at the expense of the matter forming in the previous portion of the shoot. Its growth should be therefore stopped by pinching off the end. This will assist in maturing and strengthening the vine. Any *side-shoots* that appear during the summer, or any smaller shoots that happen to spring up from the stump, should be kept rubbed off as fast as they appear, as they withdraw and divide the nourishment received from the roots.

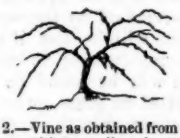

Fig. 2.—Vine as obtained from nursery, with straggling shoots.

Fig. 3.—The same, pruned when set out.

SECOND YEAR.—The single strong shoot made the first year, (Fig. 4,) should be cut down to three or four buds, only *two* shoots from which should be allowed to grow, the others being rubbed off, and the lateral shoots, should any appear, being removed as already described. The autumnal shortening of the two shoots as above stated is also necessary. The judgment of the cultivator

Fig. 4.—Growth at end of first summer from setting out.

Fig. 5.—Growth at end of second summer from setting out.

will teach him, that if the transplanted vine is small or weak the first year, and makes but a few feet growth, the same first year's process must be gone over again the second year, until the vine becomes strong enough to send up a shoot at least some nine or ten feet in length, when the "second year's" operation may be commenced upon it.—Any fruit which sets should be removed, as the vine is not yet strong enough to bear and support a vigorous growth at the same time.

THIRD YEAR.—The two shoots made during the second year, (Fig. 5,) are now extended each way horizontally, and fastened to the newly erected trellis. This may be done at the end of the second year, or early in the spring of the third.—These horizontal branches, termed *arms*, are to be cut back at the same time, so as to leave two good buds on each, so that four shoots, two on each side, may spring up from them; the same care as formerly being observed to remove suckers or supernumerary shoots and side branches, and to give the autumn shortening. None of the fruit bunches should be allowed to remain. The four

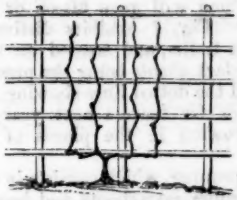

Fig. 6.—Growth at end of third summer from setting out.

shoots, as they advance in growth, should be tied to the trellis, in the position that the figure represents.

FOURTH YEAR.—Two shoots or canes are suffered to remain in their position upon the trellis, merely cutting them down to three or four feet. They will throw out from each bud side-shoots,

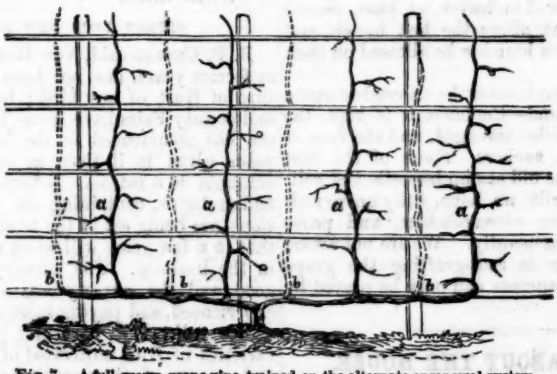

Fig. 7.—A full grown grape vine, trained on the alternate or renewal system—the dark vines, the present year's bearers—the dotted ones, growing this year, for bearing next.

which are the fruit-bearers, and on each of these spurs one or two bunches of grapes may be allowed to remain and ripen; the ends of these spurs or side-shoots being pinched off, as shown at *c*, Fig. 1. All other bunches should be rubbed off as soon as they form. The other two or outer shoots should, early in the same spring, (or late the previous autumn,) be laid down horizontally so as to form an extension or continuation of the *arms*, and at the same time be shortened to within about two feet of the ends of the previous arms. Two buds should be allowed to grow on each of these horizontal portions, one of which is to be trained upon the trellis for another bearing branch, and the other to serve for a continuation of the arms, as before, no bunches being allowed to grow on them. In this way, two new bearing shoots are added yearly, until the entire space intended for the vine on the trellis is filled.

We have already remarked, at the beginning of the previous paragraph, that the two upright shoots are cut down to three or four feet. A bud should be allowed to grow at their upper ends, from which all bunches are to be removed, so that they may serve to extend their length upwards, till the full height of the trellis is attained.

There are two modes of treating vines trained in this way. One is what is termed *spur-pruning*, and the other the *long-cane* or *renewal* system. Theoretically speaking, there is but little difference between them, but they are quite different in practice. We have already remarked that the bunches are borne on the present season's shoots. In *spur-pruning*, these shoots are thrown out yearly from the sides of a *permanent* upright shoot, and are cut back yearly, for new ones to spring out from the buds left at their base in pruning.

In the *long-cane* or *renewal* system, every alter-

nate stem is cut wholly down to the horizontal arm; so that, while last year's upright shootis furnishing a crop of grapes this year,—this year's shoot is growing (free from all bunches,) for a similar crop for next year. No shoot, therefore, remains above the arms longer than two years.

Spur-pruning is best adapted to slowly growing sorts, (chiefly exotics) which cannot produce a full-length branch in one year. The renewal system is best for the most vigorous American varieties, which will grow fifteen or twenty feet in a year. Fig. 7 exhibits distinctly a vine trained to a trellis, and treated on the renewal system, the dark shoots being the present season's bearers, and the dotted lines showing the growth of the canes for bearers next year, while new ones are growing in the places of this year's bearers.

Summer pruning, which consists in the removal of all supernumerary shoots and bunches as fast as they appear, and in pinching off the ends of bearing shoots, after enough leaves have formed, is of great consequence. Vines left to themselves, even after a thorough spring pruning, soon have such a profusion of leaves and branches, that none can perfectly develop themselves, and the fruit is consequently small, the bunches meagre, and the ripening late. The summer pinching of the ends of the bearing shoots should be cautiously done, and not before the grapes are about half grown; four or five leaves, at least, should be left on every one, above the last bunch, and never more than two bunches be allowed on each bearing fruit.

The old vine should never be allowed to rise a foot from the ground—the lower it is kept, the easier the vine will be managed, and the freer it may be kept from suckers. Some of the best cultivators bury the old stump beneath the soil.

The preceding will, we hope, fully answer all the inquiries of our correspondent, and prove useful to beginners generally. We are not aware of any experiments in root-grafting the grape out of ground—its success can only be proved by actual trial.

GROUNDS ABOUT THE HOUSE.

There is probably no other way in which the homestead may be beautified, and even made profitable, than by expending every year a little money and labor in laying out and planting with fruit trees, shrubbery and shade trees, a space proportioned to the size and style of the buildings, and immediately about them. Shade in summer, protection from storms and winds in the winter, and wholesome fruits, may be obtained, together with that constant idea of the beautiful which such such an arrangement would present. Below are some remarks to the point, which we copy from the *Country Gentleman:*

"There is nothing in practical life, in a knowledge of which our countrymen are more deficient, than in laying out and properly planting and cultivating the grounds around their dwellings. Very often they are not laid out nor planted at all, but are left in a state of primitive bleakness, or only ornamented by objects of confusion and disorder. Where improvement is actually attempted, the result is not unfrequently a combination of inconvenience and stiffness; and very few neatly, economically and tastefully laid-out grounds are to be met with. Why should not this art, which every living man in the country ought to practice, be taught in our higher schools? Latin and Greek are excellent studies for those who have plenty of time and means for these as well as other departments of knowledge; but for such as cannot master all, would not the months consumed on Tacitus and Thucydides, be more profitably spent on those fascinating and eminently useful studies, drawing and architecture, in connexion with landscape gardening? When will the time come that the latter will have only an equal chance with the former? Time once lost never returns; and it is of the highest consequence that those who direct the mode that young people shall spend it at the most critical of all periods in their lives, should study carefully the best modes for accomplishing so all-important an object."

☞ We have heretofore given a portion of the remarks of the President at the last session of the Pomological Society, and now proceed to give some of the reports from the States represented in the convention.

REPORT FROM NEW HAMPSHIRE.

B. F. CUTTER said, New Hampshire, as a State, in former years, has not been celebrated for culture of fruit of any kind; but since our State and county Fairs have been in operation, a new era has commenced in the business, and an impetus given to it that, in some places, almost amounts to a mania. Information is sought for, and orchards, containing the most choice collections, are being set in the most approved manner, that in a few years will work an entire revolution in the business. The nursery business remains good, and the nursery-men are becoming more experienced, and paying more attention to making choice collections of fruit; yet we have many varieties of fruit cultivated of a local character, and many of them entirely worthless, which makes one of the most serious drawbacks in fruit culture.

REPORT FROM VERMONT.

C. GOODRICH said, the Northern Spy has not yet answered our expectations. It is a hardy and good grower, but a very shy bearer. Old bearing trees, grafted in 1846, have yet produced little fruit; while in the same orchard, and like trees as those grafted at the same time with the Baldwin, cut from bearing trees in Cambridge, Mass., produced full crops the fourth season, and have continued to do so in alternate years, at the same time making a large growth. The Gravenstein sustains its high character; fair, very hardy, good grower and bearer, and in every respect I must mark it *best*.

REPORT FROM CONNECTICUT.

The committee reported that the early part of the season of 1853 was made remarkable by the appearance of the Palmer worm, so called, in great numbers, which destroyed the foliage of apple trees, as well as that of some others, and,

of course, injured the fruit more or less. This insect eats the leaves as voraciously as the canker-worm, and at about the same season, viz., June. They did not appear again this year.

Very much fruit, it is believed, was destroyed this year by a severe frost that occurred on the first Sunday night in May, the effects of which were more noticed than the cause; which fact can only be accounted for by the habit people have, in these parts, of lying late Sunday mornings. The morning was bright and clear, and the ground where it had been broken up, frozen hard enough to bear up a man of common size. Plum trees, cherry, and perhaps some others, were in profuse bloom at the time, but failed almost entirely of producing fruit. Apple and pear buds generally were also much injured. One fact, in this connection, is worthy of notice: many pear trees, on quince roots, were at this time entirely killed, as appeared afterwards, while those on their own roots were not injured beyond the destruction of fruit. About one dozen vigorous looking trees were killed in my own garden, many of them having borne fruit several seasons; showing very conclusively that pear trees, on quince roots, are liable to a calamity which those, on their own roots, are not. The trees, in this instance, were forward, the buds nearly ready to open, and the sap, of course, in free circulation, making it most probable that the sap vessels were destroyed by freezing of the sap. If this be true, there is one objection to trees thus worked, which we have not seen noticed.

REPORT FROM NEW YORK.

Mr. JOHN B. EATON said—Fruit culture in the vicinity has rapidly advanced within the past ten years. Up to that period it had attracted comparatively little attention, and (except in the nurseries) the varieties cultivated were few, and many of them such as would now be considered worthless. The apple was almost the only fruit I cultivated for market, except a few of the most common pears and cherries. There were several pretty large apple orchards, composed chiefly of Rhode Island Greenings, Spitzenburg, the various Russets, and a few others, which, at that time, comprised the bulk of the varieties under cultivation.

Many thousands of trees have since been planted, and nearly all the finest apples, pears, cherries, plums, etc., have fruited. The smaller fruits have also largely increased, both in number of varieties and quantity. The strawberry, in particular, has of late received much attention, and a considerable extent of land is devoted to its cultivation.

TO CORRESPONDENTS.

Communications have recently been received upon the following subjects, which we shall insert as we can make room for them, viz.:—Plows and Stones; Articles in Season; Springs—Live and Dead Weight of Beef Cattle; Stone for Building; Shaping Cattle Horns; A New Building Material; Plows and Plowing; Gas Lime; Profit of Hens; Propagating Apple Trees; Quinces, China Peach, Pear Trees, Strawberries; Mixing Varieties of Corn; Lunar Influence, No. 2; Raising Apple Trees; Waste of Manures, Muck, Hops; Worms in Cornstalks; Draining, two articles; Hard Times, and price of Labor; Turnips for Pigs; Profits of Farming; Bethel (Me.) Farmers' Club; Short Horn Cattle; Inquiries about Hops, and several articles in relation to the Basket Willow. In regard to the latter articles, if we find anything in them that we have not already given, we shall be glad to publish it.

Now is the time to write. Soon the fields will invite the farmer to their care, when the pen will be resigned for the plow. If your communications are sent us, we will see that they are presented to the world in good season and in good form.

For the New England Farmer.

THINNING FORESTS.

Mr. EDITOR:—In your January number of the monthly you have an article on "Thinning Forest Trees." The subject is one of vast importance to the future interests of New England. The writer of that article says, "The question is often asked whether woodlots should be thinned? He is convinced, after no limited reflection and observation, that they should not." Perhaps I do not fully understand what he means by woodlots. A woodlot of large trees is one thing, and a thick young growth of trees, intended for a wood and timber lot, is another. That the last-named may be advantageously thinned out, I am now convinced, after no limited reflection and observation, tested by more than twenty years' experience.

I am aware that many farmers object to thinning out a young growth, if it be ever so thickly set with trees. Their doctrine is—nature will perform this operation better than man can. But says the author of an able work on forest trees, (Richard S. Fay, Esq., Essex County Transactions, 1848,) "To cultivate a wood plantation successfully, requires the same degree of care and attention in thinning out, as an onion, carrot or beet bed. If the trees are left to struggle with each other for the mastery, the vanquished will die, while the victors will suffer severely from the effects of the struggle." "The object to be attained by thinning, is so to regulate the distance of the plants, that they will not interfere with each other's growth; and for this purpose it is necessary that each plant has sufficient space of ground and air, for the spread of its roots and branches, proportionate to its size at any stage of its growth. To accomplish this properly, requires constant attention. It is highly injurious to thin so much at one time as to have the trees remaining exposed to a greatly increased degree of heat and cold; it is like suddenly removing the plantation a few degrees farther north or south. So it is equally injudicious to allow the plants to become crowded and interlaced, as thereby they exclude too much the light and air, and serve to weaken each other. In rearing a plantation for timber, the approved rule for hard wood trees is, to have a space between each tree equal to one-half its height; and for resinous trees, a space equal to one-third the height; this should be

kept in view from the moment the thinnings commence. The period when these thinnings should begin, must depend on the forwardness of the trees."

In Germany, the management of wood and timber trees is under the direction of educated and competent government agents. In making new plantations there from seeds, broadcast sowing is found the better method; the plants being allowed to grow, all together, a dozen or twenty years; when the weaker and poorer ones are removed; leaving the best and straightest to grow; always careful, however, to leave enough to keep the ground thoroughly shaded. The thinning and trimming employ hundreds of the peasantry when other labor is in less demand. The limbs and twigs are made into faggots, and chiefly used by bakers; the trunks and larger branches are saved for fuel and other purposes.

About twenty-five years ago I came into possession of several acres of "pine plain land," covered with a thick growth of white-yellow and Norway pines; the trees were then about twenty-five years from the seed. (The land was burned over in a very dry time about the year 1800.) Immediately after I came into possession I thinned out the growth on about two acres, removing more than half the number of trees, they being the smaller portion. The wood thinned out much more than paying the expense of thinning and drawing. Soon after, I sold the land, since which nothing has been done to it. I have, with the present owner, recently examined the lot; we were of the opinion that the portion thinned some twenty-five years ago, is now, from the superior size of the trees worth 33 per cent. more per acre, than that portion left to itself. Can any one doubt, that the limbs and tops of the removed trees, and the decaying stumps and roots of those cut out, with a free access of sunlight and air, has not very much increased the growth where thinned out, over those "left to struggle, from the excess of numbers, for the mastery, many of the vanquished have died, while the victors have suffered severely from the effects of the struggle." I sold the land for ten dollars per acre, the present owner has recently refused one hundred dollars per acre for it. Had he judiciously thinned out the trees from the time he purchased it, till now, he might have (without injury to its present worth,) taken from it enough to have paid the interest on his purchase and taxes. I have thinned out the growth of hard wood trees with results similar to the above described. Levi Bartlett.

Warner, N. H., Feb. 6, 1865.

Remarks.—It is pleasant to observe how old notions are gradually yielding to a better knowledge of the modes of rearing many crops. From boyhood, the cry has been familiar to our ears—"forests must not be thinned, nature will take care of them"—"evergreens will be ruined by thinning." Twelve years ago we saw a forest of white pines thoroughly thinned and *pruned*, and we have seldom seen a finer growth on any forest than on that. Mr. Bartlett will please accept our thanks for his valuable article.

EXTRACTS AND REPLIES.

WESTERN FARMERS.

Dear Sir:—Will you be so kind as to inform me from what paper a young man, intending to go West, can obtain the best information relative to *farming* in the Northern, Western States, or Minnesota Territory. By so doing, you will much oblige a constant reader of the *New England Farmer*. C.

Salem, Feb., 1855.

Remarks.—We have directed two or three Western agricultural papers to "C., Salem, Ms." Why do so many people withhold their names when they write us?

THE NEW ROCHELLE BLACKBERRY.

Editor N. E. Farmer:—I notice some remarks in the January number of the *N. E. Farmer*, in regard to the price of the *New Rochelle Blackberry*. The price at which they are sold is by no means extravagant, as they are only propagated by shoots from the roots, which, all must be aware, is a slow process. The only two persons who raise them for sale,—Mr. Lawton, of New Rochelle, and Geo. Seymour & Co., of Norwalk, Ct.—are trying to raise for their own transplanting; for, after the first or second years' transplanting, they will raise more than a dollars' worth of fruit, and the demand for the fruit is greater than the supply, and will be for years to come.

I exhibited last season, in New Haven, from Messrs. Geo. Seymour & Co., at our Horticultural Exhibition, very fine specimens. One of the berries measured four by three and a half inches in circumference, the size of a pullet's egg. Some of the specimens were taken from a plant in a Mr. Smith's private garden in Norwalk. I think it had been planted out three or four years, and should judge it had on it nearer one-half a bushel than a peck of berries; so that a dollar a plant cannot be a very great price under these circumstances. F. Trowbridge.

New Haven, Ct.

MILLET.

Will you give us, in the columns of your best of all papers for the farmer, a chapter on millet? Will it do well on cold, clayey land? (*a.*) Can it be sown like oats, in laying down ground to grass? (*b.*) If not, what is the proper course, and what is considered a fair yield? Any other information on the subject would be thankfully received.

Raynham, Feb., 1855. Subscriber.

Remarks.—(*a.*) Millet will grow well on such land as you describe, if it is well-drained and manured.

(*b.*) It is too rank and heavy a crop to set grass with.

See Vol. V., *New England Farmer*, p. 157, 203.

VETCHES.

Mr. Editor:—I wish to inquire, through your columns, if you, or any of your subscribers, have had any experience in cultivating the above named grain? If so, whether the seed or root will remain in the ground and germinate in after years? L. W. S.

New Haven, Vt., Jan. 30, 1855.

MANURE FOR THE GARDEN.

SIR:—I am the owner of a house and a half acre of land, and keep one horse, and wish to know of the best way to prepare the manure for the land. Shall I mix the two together, adding ashes, or lime, or salt? I keep no pig, but throw the manure into the poultry yard. Ought the vines or trash from the garden to be thrown on to the manure? How long before the compost would be fit to use.

I had a good garden last year—nothing suffered from the drought, although my land is elevated. I want a better garden next year, if possible—therefore, the reason of asking the above questions, and by answering them you will oblige a

CONSTANT READER.

Medford, Jan. 19, 1855.

REMARKS.—In the autumn, gather all the vines, leaves, and every kind of vegetable matter that will ferment and decompose readily, and place it where the horse manure may be conveniently thrown over it. If this, with the daily additions from the stable, can be kept from freezing, it will be better. In the course of the winter throw it over and mingle the whole intimately. If, in the spring, the mass is too crude and coarse for use, throw it up lightly, wet it, and when the process of fermentation has gone so far as to cause the whole to fall to pieces on overhauling it, you will find it in a convenient and profitable state for the garden.

Another source of collecting and preserving rich and valuable materials, may be this:—In the garden, and near the back door of the house, make a bed of the loam you speak of. Let it be of any size or shape you please, and six to twelve inches deep; then raise the edges eight or ten inches, and upon this throw the waste water of the house through the winter; then, as soon as the muck is thawed in the spring, add the collections of any of the back buildings, and mingle the whole thoroughly once or twice before it is time to apply it to the garden. In this you will find your garden answering your most sanguine expectations.

Ashes, lime and salt, may be sown broadcast upon the garden with as favorable results as applied in any other way. If sorrel abounds in the garden, be liberal with the lime—note the effect and tell us what it is.

POTATOES—AN EXPERIMENT.

MR. EDITOR:—Last spring, coming accidentally into possession of two barrels of potatoes, of a variety unknown to me, I cut them into 75 pieces, 11 eyes to a piece, and planted one piece to a hill, putting a shovel full of raw muck, dug the August previous, to a hill, into 60 hills, and into the other 15 I put hen manure and muck, mixed equally one quart to a hill. They were well watered with the drainage of the sink, caught in a tub and applied at night. The whole produced 60 barrels of fair, good-sized potatoes. Those planted on the hen-manure and muck, did not produce quite one-half as much as the same number of hills on muck alone.

West Poland, Me., 1855. T. TENNEY.

TURNIPS FOR PIGS.

MR. EDITOR:—Having heard that pigs would thrive well on turnips, I thought I would try my skill in the use of them, especially as oats and other grains were high. I fed several, last fall, entirely on turnips, for two weeks, together with the slops from the house, and then as long on oats. With oats at 50 cts., and turnips at 12 or 15 cts. per bushel, I became satisfied that the turnips would produce a larger growth than an equal cost for oats. * * *

Canaan, Vt., 1855.

A BIG TURKEY.

I have a turkey seventeen months old, that weighs *thirty-one pounds*. If you think he is worth a notice, please give him some spare corner. A SUBSCRIBER.

January 23, 1855.

REMARKS.—A turkey of that size deserves a more conspicuous place than a *corner;* we should be happy to place him on the *centre* of our dinner-table, and pay him most respectful attention, for at least the space of thirty minutes.

FOUR-ROWED BARLEY—GUANO PER ACRE—OSIER WILLOW.

MR. EDITOR:—I would like to inquire where I can procure some four-rowed barley, and the price per bushel? (*a.*) What is the proper quantity of guano per acre to put in a hill for corn? (*b.*) Is there as much difference in value between the Peruvian and Mexican, as there is in the price? (*c.*) Will the osier willows be large enough to cut every year, after they once get rooted? (*d.*) A YOUNG FARMER.

Kensington, N. H.

REMARKS.—(*a.*) The barley may be obtained at the seed stores, price $1.50 per bushel.

(*b.*) Three hundred pounds is the usual quantity.

(*c.*) We do not know—you must satisfy yourself by experiments.

(*d.*) We have never raised the osier, but understand that it grows sufficiently to be cut annually.

DIVINING RODS.

We cannot see that we should benefit any one by publishing the communication of "E. F. R." on this subject. We cannot oblige our neighbors to fulfil their promises to others.

TREATMENT OF PEAR TREES.

Having much confidence in your opinions, I wish to inquire what particular treatment pear trees require? C. J.

Franklin, N. H., 1855.

REMARKS.—Pear trees require a rich soil, kept cultivated, so that it will be light and friable.

For the New England Farmer.

THE CONCORD GRAPE.

This new seedling grape has been much extolled in the agricultural and horticultural journals of the country. How justly it merits what has been said in its praise, there are, of course, various opinions. This is to be expected of every new thing that comes up. Too many people are habitually prone, by nature, or otherwise, to use other people's judgment and reason, instead of their own. Such seldom know what to love or prize till some friend or neighbor tells them. So, oftentimes, new, useful and valuable improvements pass unheeded by them. So it is, and so we may expect it to be. Well, be it so. It is well enough to be duly conservative; but one should be sufficiently careful not to lose *too* much by the means, as I fear very many will in the matter of the Concord Grape.

One of your correspondents, I see, thinks it will take ten or fifteen years to establish the reputation or value of this grape. Well, let him wait that time, with his "place prepared," before he procures one, and see how much he will gain by it I do not believe any such length of time is required to test its value. I believe it has already been sufficiently tested. As good judges as are to be found in such matters—who have watched its progress year by year, and side by side with the Isabella and Diana, are *sufficiently* convinced of its great superiority. I have watched this grape with much interest for some years. I *know* of its delicious flavor, its hardihood, its vigorous growth and early fruitage. I have eaten freely of the fruit of the vine, and have tasted the wine made thereof, and am free to confess that I would willingly subscribe to and sanction the most laudatory article that has ever been written in its favor. I have read what has been written *pro* and *con* about this grape. Some articles have been true, just and honest; others have been anything but such—more of unhealthy disposition than of truth in them, and may be a little of what might go by a much worse name. But these and the motives may be little minded. Self-interest gives people, sometimes, strong prejudices, and makes them appear dishonest and ungentlemanly. Yet such manifestations will have no bad effect upon any who know the grape or its originator.

Aside from all its worth as a first-rate table grape, it would be difficult to rate its value merely as a wine grape for New England. A more delicious wine than comes of it, I certainly never tasted, or wish to taste; and take it altogether, it will be a difficult matter to produce another grape combining *so many good qualities*. In so saying, I know I speak the minds of the best judges of its merits. So I am sure it will prove.

I write this article of my own free will; unsolicited and unbeknown to Mr. Bull. Mr. B. is a truthful and very worthy gentleman, one who may be safely relied upon. I have no interest in speaking thus laudatory of the Concord Grape. I do it because I know that thereby I do a good work for any one I may thus induce to purchase and grow it. There are many luxuries that may well and profitably be dispensed with; but the Concord Grape is not one of them. It is an indispensable article. Whosoever tries it fairly, will agree with me, I am sure.

I see, by an advertisement in your paper, that the price has been reduced from five to three dollars the single plant, and twenty-four dollars per dozen. If Mr. B. can afford to do so, I am glad; but I should hardly think his prices remunerative, considering all the labor, trouble and expense he has incurred in its procuration and propagation. At any rate, whether he is remunerated or not, he will have the happiness of knowing that he has done his country much valuable service.

Now, Mr. Editor, let me assure you that I never enjoyed a seat upon any cushioned mahogany half so much as a seat upon the ground under one of Mr. B.'s vines loaded with ripe, luscious grapes. Here one might be tempted to break the commandments if anywhere. To while away an hour here of a pleasant day in September—eat grapes and chat with Mr. Bull, of the wonderful and beautiful phenomena of the vegetable kingdom. One never gets a more realizing sense of the feelings of father Adam when leaving his vines and fruit trees, than comes when retiring from such a feast.

Now every one who has a house and garden, can have just such vines to sit under, just such fruit to eat, and such a place for meditation. Such things are good preachers, and better teachers of Divine revelations to our physical and spiritual bodies than many great-salaried theologians, for they root the relics of mythology and barbarism out of us much faster. They are also grand physicians to the physical and spiritual man, for they purify the stomach and the blood, and thus bring the soul to light and liberty. I can easily imagine why Mr. Bull is a happier man than the President, or any other man who recommends people to "conquer their prejudices" against slavery, to gain the "White" or any other house.

Now let me say to any one who may by any means have been induced to discredit my report, go, as I have done, and see for yourself. I can assure such they will not go away empty or disappointed.

D. P.

Billerica, Feb. 12, 1855.

SIXTH LEGISLATIVE AGRICULTURAL MEETING.

Reported for the New England Farmer,

BY WILLIAM W. HILL.

The sixth agricultural meeting of the season was held at the State House, on Tuesday evening last.

Hon. E. A. HILDRETH, of Groton, Senator for Middlesex county, presided, and made some interesting remarks in regard to the general subject of agriculture. In the course of his remarks, he referred particularly to the investments in railroads, which the farmers of Massachusetts made a few years ago, and the losses which they had sustained by the transaction. The farmers of Vermont and New Hampshire, however, have reaped substantial benefit from the expenditure, which he could not help noticing in a recent visit to Vermont, where every town along the lines of railroad has a miniature Faneuil Hall market, and prices range almost as high as in Boston. He concluded by expressing the hope that the

efforts of Massachusetts farmers to improve their farm stock, would prove a more profitable undertaking.

Mr. KNOWLES, of Eastham, followed, discussing briefly the subject for the evening—*Farm Stock*.

Mr. COPELAND, of Lexington, endeavored to have the discussion for the evening directed to a single point—What are the prominent qualities to be sought for in securing an American race of cattle?—in order to arrive at some definite results; but objection was made to limiting the latitude of debate, and the subject of *Farm Stock* was thrown open to the meeting in all its length and breadth.

Mr. KNOWLES, of Eastham, spoke briefly, saying that the experience of farmers had demonstrated that native stock was infinitely preferable to foreign, not only in cattle, but in horses, sheep and fowls. Practical farmers, he found, placed their chief confidence in native breeds.

Mr. PROCTOR, of Danvers, followed. He said he was one of those who believed that we *have* a native stock of cattle, for he considered that whatever was born upon our hills, whether originating from foreign stock or not, was entitled to be called native; but he did not think them "infinitely better" than all others. For beef cattle, he was satisfied that a cross of the Durhams or Devons was superior to any thing else, yielding more pounds of beef, and growing faster, larger and fatter. For the yoke, however, nothing can excel our native cattle; he asserted this from his own experience and observation for a long series of years. When speaking of working cattle in connection with English breeds, it should be borne in mind that in England they do not know any such thing as oxen for work; they use horses. With us oxen are used on all kinds of farm work, and, after a few years, are killed for beef, a fact which is quite important in considering their value. As for animals for milk, the Jerseys produce a quality of milk which cannot be equalled anywhere; but for dairy purposes—whether butter, cheese or milk—he had yet to learn that any thing better could be got than from a cross of the best bulls with the best cows of the native stock. He knew of a dairy of native cows in Danvers, which yielded as good products as Ex-Governor Lincoln's fine blood stock; and another case in which a native cow, five years old, belonging to a widow lady, made 50 pounds of butter in 30 days, besides supplying milk for a family of four persons, and in addition another quart per day, divided between two poor families. And this with nothing but pasture feed, which he considered an important circumstance.

Mr. BROWN, of the *New England Farmer*, next spoke, and alluding to the complaint of those who do not attend, that our discussions are not practical, said he would confine himself to two or three particular points, each of importance, and in which most farmers are immediately interested. With regard to oxen, it used to be the habit to keep a good pair of workers until they were eight or nine years of age, depending upon them to perform the principal team work of the farm, and then make a *business of fattening* them for the market. Having reached this age and passed the period when they take on flesh and fat rapidly and naturally, the process is a slow and expensive one, and the profit was found to be small.

Now, the farmer selects the finest steers, matches them, feeds liberally, keeping them clean and warm, subjects them to the yoke and handles them when young, and by careful and judicious management, makes them do the team work of the farm while they are growing rapidly, and by the time they are five or six years old, they have come nearly to maturity, and without a special stall feeding of two or three months, and when slaughtered make tender, juicy and rich beef, commanding the highest price. It is difficult to make cattle take on fat and flesh rapidly that have passed the natural period of growth and physical activity.

In breeding cattle, he thought there was a misunderstanding in the minds of some in regard to the axiom, "like begets like." If a heifer of any particular breed, say Durham, for instance, is coupled with a Durham bull, a pure Durham calf will be the certain result; but let her go the next year to a Devon male, and so year after year to mixed breeds, and there will be no certainty as to the character of her offspring—she will be quite as likely to go back to the first type. It is asked why our native cattle will not produce certain characteristics in their progeny. It will, as surely as a Baldwin apple stock will produce that variety of apples, if the stock taken is pure and kept pure. Mr. Brown said he could communicate to the farmers of the State a plan by which they could add to their annual income the sum of *two millions of dollars*, and he thought they would readily admit that it was a *practical* one. There are in the State 150,000 cows, whose average yield of milk for the year does not exceed four quarts per day. Now, from experience and observation, he was confident that in two ways—either by improving the breed, or by taking better care of stock, sheltering them and feeding them more liberally and systematically with roots, &c.—their milk may be increased one quart per day, which, at four cents per quart, would give the sum of $2,190,000—an addition to their annual income which was certainly something of an object.

Hon. B. V. FRENCH, of Braintree, gave it as his

opinion that we have no pure Durhams here, as they have in England, Ohio, Kentucky and Illinois. Ours are crosses. The treatment of cattle is a very important matter. His man had told him that when his cows had been turned out for a couple of hours during the late cold weather, they gave two quarts less of milk—that is, they gave only 30 quarts where they gave 32 quarts previously. Cattle should be kept warm, in a temperature of 40 degrees. In feeding cattle, turnips, which can be raised cheaply, are very advantageous, saving a good deal of hay, and bringing the animals out in better condition in the spring. As to the breeds of cattle, he hoped the day would come when the State or some benevolent individual would make minute and systematic experiments, which would point out the race of cattle best adapted to the peculiar wants of New England.

Hon. Seth Sprague, of Duxbury, followed. He remarked that he was not certain that he understood any thing about the subject; still, he had his opinion in regard to the matter, founded upon the results which eminent herdsmen had attained in other countries. He believed that the laws which govern the reproduction of animals, were as fixed and determinate as those which control plants, or other natural productions, and are as capable of actual experiments as chemistry or any other science. The breeding of cattle commenced in England seventy-five years ago, upon certain rules, and the fact has there been established that any kind of cattle desired can be raised, and with a certain result. Can a pair of cattle be obtained in New England which will produce offspring exactly like themselves? Col. Jacques said he would breed cattle to order of any form or color. If we take good bred stock, we may be certain of the progeny; but with our native stock good offspring are the exception, and poor prove the rule. They are the result of a mixing of two hundred years, without regard to the laws which make like produce like, and we cannot expect to produce from this mixed blood an animal of any certain size, form, color or quality. The English herdsmen have raised their noble stocks by breeding for fifty years without crossing. If you put a Devon bull to any kind of mixed cow, the Devon blood will predominate.

Mr. Fay, of Lynn, commended the views of Mr. Sprague. He believed that a race of cattle could be obtained from native stock equal to any in the world. It has been demonstrated that we have as good milch, working and beef cattle as existed, and having all these qualities, a good breed can be obtained in twenty or thirty years. It must be done by breeding in-and-in, until a fixity of type is obtained; when the male produces a fixed type, the process has been carried far enough, and then vigor or certain qualities may be infused by crossing. There is no danger of vitiation after this fixity of type is attained. To counteract the deterioration which supervenes in animals at certain periods, a pure blood cow should not be used for crossing, but a good one whose blood is mixed as much as possible, and an animal as perfect as the male will be obtained. The hardiness or other quality of this cow will be imparted without affecting the blood race. It is the predominance of one blood over another which makes a race. If a bull's pedigree goes back only for a short distance even, and he is put with a mixed cow, a good race will be propagated.

Col. Newell, of Essex, remarked that his experience accorded precisely with the views advanced by the last two speakers. He avowed his disbelief in the notion of a stock of *native* cattle. We have none, and the reason is that no one has attempted to take so-called native cattle and bring out their peculiarities. Col. Jaques used a foreign bull in attempting to get up a native stock.

Mr. Sprague said he would admit that a breed of native cattle of a certain type might be raised, but it would be a matter of much difficulty and expense. Suppose a couple of cattle are taken, as nearly what is desired as possible, and in a year or two the head will be found too large, the body too short or too long, or some other defect appear, and it will be necessary to begin anew. The task would require a man peculiarly fitted for it by education, judgment and experience, and would be the work of twenty or thirty years.

Mr. Fay remarked that the work of rearing a new race should be commenced not with one cow and one bull, but with herds, and those young cattle. After obtaining the race best adapted to New England, with its small farms—which would be one combining in the highest degree milk, beef and work—offshoots would appear which would excel for milk, for beef and for work, separately, and we should thus get far better cows than we now have. In Switzerland, where milch cows are most prized, the bull's pedigree is closely scrutinized, to see if his mother was distinguished for her milking qualities, as it is the bull which determines the character of the offspring.

Mr. Buckminster of Framingham, said the yield of butter in this commonwealth might be increased from five pounds to ten pounds per cow per week, because we can have a race which will give it. He also offered some very interesting remarks in regard to "native" and foreign cattle, which our limits will not permit us to sketch.

Pertinent remarks were also made by Messrs. Howard, of the *Cultivator*, Merriam, of Tewksbury, and Emerson, of Boston, but we have not room for them.